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THE GENERAL

PRACTICE of PHYSIC;

Extracted chiefly from the

WRITINGS

OF THE

Moſt celebrated Practical PHYSICIANS,

AND

TRANSACTIONS of the LONDON COLLEGE, MEDICAL ESSAYS, and MEMOIRS of the Learned ACADEMIES in EUROPE.

To which is prefixed

An INTRODUCTION,

CONTAINING

INQUIRIES relative to the PATIENT,
Of diſtinguiſhing one DISEASE from another,
Of the PULSE,
Of the Conſent of the NERVOUS PARTS,
Of OBSTRUCTIONS, &c.

Multum egerunt qui ante nos fuerunt, ſed non peregerunt: Multum adhuc reſtat operæ, multumque reſtabit, neque ulli nato poſt mille ſæcula præcidetur occaſio aliquid adjiciendi. SENECA.

By R. BROOKES, M. D.

In TWO VOLUMES.

The SIXTH EDITION,
With conſiderable ADDITIONS and IMPROVEMENTS.

VOL. I.

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M DCC LXXI.

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PREFACE.

IF we look back to the Origin of the *Art of Medicine*, we ſhall find its firſt Foundations to be owing to mere Chance, unforeſeen Events, and natural Inſtinct. Nor does it appear there were in the Beginning any public Profeſſors of this moſt uſeful Branch of Learning; for ſick Perſons were placed in Croſs-ways, and other public Places, to receive the Advice of Paſſengers, who had Skill ſufficient to direct them to an efficacious Remedy, ſuitable to their Diſorder. And the better to preſerve the Memory of any remarkable Cure, the Diſeaſe, the Remedy, and the Succeſs, were engraved on Pillars, or written on the Walls of Temples, that Patients in the like Caſes might have Recourſe thereto for Inſtruction and Relief.

Hence it appears, that the Riſe of this Art was owing to repeated Trials and long Experience, which gave an Inſight into the Virtues of Herbs and Plants, Metals and Minerals; and in what Diſeaſes they were attended with moſt Succeſs. The Skill of the firſt Phyſicians was therefore termed Ἐμπειρια, [*Experience*,] and they themſelves were called Ἐμπειρικοι, [*Empirics*,] Words which, however miſapplied, at preſent, to Quacks and illiterate Pretenders, will, for ever, point out the true Method of medical Improvement. And had as much Time been ſpent in making cautious Experiments, and writing accurate Hiſtories of Diſeaſes, as in the inventing new Theories, and interminging falſe Philoſophy with true phyſical Knowledge, this Art would have appeared in its true genuine Luſtre long ago. It is owing to Lazineſs, Inattention, or too haſty a Purſuit after

Fame, that we hear of ſo many Patients cured, who have been given over by the Phyſicians? Shall Gentlemen of ſuperior Learning, great Abilities, and a thorough Acquaintance with the Animal Oeconomy, ſuffer themſelves to be excelled by ignorant Medicaſters, when they themſelves are beſt qualified to adminiſter, with Judgment, the moſt potent Medicines of every kind. If theſe are the edge Tools of Phyſic, in whoſe Hands ſhall they be truſted, but in theirs, who are beſt able to wield them, to vanquiſh the formidable Enemies which bid Defiance to every gentler Method.

But a Backwardneſs to make Improvements is not all we have Cauſe to lament; for there is a ſtrange Repugnance in many to admit any new Diſcovery, however beneficial to Mankind. Of this the *Peruvian Bark* is a notorious Inſtance, which made its way into the World with ſuch unaccountable Difficulty. I might alſo mention the Time when the *Lues Venerea* firſt appeared in *Europe*, when the Cure of that filthy Diſeaſe was entirely in the Hands of Barbers, and other Perſons of the ſame Claſs; who boldly ventured upon *Mercury*, practiſed with Succeſs, and quickly filled their Pockets; while the regular Phyſician, adhering cloſely to the Rules of *Galen*, uttered ſharp Invectives againſt theſe enterprizing Quacks, and gave their Patients the Satisfaction of dying miſerably according to Art. How neceſſary therefore is it, for a Practitioner to be void of Prejudice, to abound with Candour, and to embrace real Improvements with Eagerneſs.

But in other Reſpects it is happy for us that former Ages and the preſent admit no parallel; all Sects and Parties are now baniſhed from the Commonwealth of Medicine, the operoſe Jumbles of Compoſitions are expunged from our Diſpenſatories, and this ſalutary Art is again reaſſuming the native Splendor of its original Simplicity. *Others* are treading in the ſame Steps with our immortal *Sydenham*, who was an Imitator of *Hippocrates*, and

and whoſe Works ſhall live, when a thouſand *theoretical Volumes* are condemned to the baſeſt Uſes.

There are *Powers in Nature* which are beyond the Reach of our intellectual Faculties, and *Phænomena* which have baffled the Enquiries of Ages, though they ſeem to come more immediately under the Examination of our Senſes. How then can we determine what is doing behind the Curtain? By what Hypotheſis can we explain the freſh Vegetation of mangled Trees and Plants, and the various Methods of their Propagation? Or by what Theory now in vogue, can we account even for the Regeneration of a Lobſter's Claw? Much leſs can we tell why the Iſſue of two different Animals loſes the Power of Generation. And yet that this is the Caſe of Quadrupeds, has long been generally known. It is likewiſe the ſame with Birds, as all who delight in Breeding thoſe of the ſinging Kind can affirm, from their own Experience. With regard to our own Bodies, it is true, in the utmoſt Extent of the Phraſe, that *we are fearfully and wonderfully made*, and the more we enquire into the Nature of Man, the more Reaſon we have to admire the Wiſdom and Power of the Creator; and the greater Occaſion to confeſs our own Ignorance. But the Laws of Nature are more within our Reach, and to gain Acquaintance with them is an Occupation worthy of a true Philoſopher, and without which no Man deſerves the Name of a Phyſician.

Now as ſome Improvements have been made in this Reſpect, and Medicines diſcovered, or differently applied, of which no tolerable Account has yet been given, in any practical Treatiſe of this Kind, I thought I could not do a greater Service to the Public, than to bring together the beſt Parts of different Authors, and place them in ſuch a Manner, as, I hope, will be of great Uſe to many young Phyſicians; and as for the more experienced, if it does not improve their Knowledge, it will at leaſt refreſh their Memories. Of this I am now the more confident, not only from the kind Reception the

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five former Editions have met with, but alſo from the favourable Sentiments which ſome of the firſt Rank for Merit among the Faculty have been pleaſed to diſcover relating thereto. And certainly every Aſſiſtance, how ſmall ſoever, muſt be looked upon with a favourable Eye, which has a Tendency to prevent Errors in Practice, and conſequently to ſave the Lives of many, who might otherwiſe fall Victims to Want of Skill in ſome of the Profeſſors of this moſt neceſſary Art. I might, with more Eaſe to myſelf, have digeſted the Extracts which I have collected into one continued Diſcourſe, but then it would have wanted the Authority which ſuch a Treatiſe requires. When Authors of great Note differ in their Opinions about any material Point, I have not concealed it, that Practitioners might proceed with Caution, and not determine too raſhly in doubtful Matters; but leave the Deciſion to careful Obſervation and unbiaſſed Experience.

I have given various Preſcriptions in moſt Diſeaſes, not as an abſolute Standard for Practice, but as Patterns for Imitation, which, generally ſpeaking, are to be varied according to the Sex, Age, and Conſtitution of the Patient. Of theſe I have chiefly preferred the moſt ſimple; for I think nothing more deſtructive to ſound Practice, than an inconſiſtent *Farrago*, which renders it impoſſible ever to determine the Virtue of any Medicine, or to know to what their ſucceſsful or pernicious Effects are owing. Conceited Authors may rail at ſpecific Qualities as much as they pleaſe, but it is impoſſible for them to make any Proficiency in the Art of Healing, without an adequate Knowledge of the Alterations each Drug will produce in a Human Body, not by their mechanical Action, but by their ſingular Properties. And I heartily wiſh this Branch of it was purſued with Diligence, and improved with Judgment. I ſhould be glad to know whether the Knowledge of the Effects of the four *Herculean Remedies* are owing to *Reaſoning à priori*, or not? I mean *Opium*, *Mercury*, the *Peruvian Bark*, and *Steel*; to which may be added a fifth, which is *Antimony*. For if

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our Acquaintance with the Virtues of theſe is the Reſult of Experience only, why ſhould we ſtop in our Enquiries, or conclude we have already arrived at the *Ne plus ultra* of the *Æſculapian Art?*

I am no Enemy to the *mechanical Practice*, but am very ſure it falls greatly ſhort of Expectation; and alſo that the Manner of ſome, in explaining the Effects of Medicines, is very inſufficient. When we are told, very gravely, that *Quickſilver* in the Blood Veſſels is like Shot in a Bottle, which, by its *Gravity* and *Momentum*, ſcours off all Impurities, and opens the Obſtructions; I know not whether it ought to raiſe our Laughter or Indignation.

But ſuppoſing this is allowed to be an ingenious Solution of its ſurprizing Operation, I ſhall ſtill be at a Loſs to account for its Virtues in external Applications, or why the very Water that it is boiled in proves an *Anthelmintic* of a ſuperior Claſs.

This is a ſmall Specimen of the Reaſoning of thoſe Gentlemen, who would be thought very ſkilful in abſtruſe Matters; which generally proceeds from a ſtrange Repugnancy in human Nature to be eſteemed ignorant of many Things which are placed without the Sphere of our Knowledge. Hence all the Abſurdities of *Des Cartes*, and his Followers, who have taken vaſt Pains to circumſcribe the Univerſe within the Laws of Matter and Motion: Hence ſuch a ſtrange Variety of Cobweb Theories which have been induſtriouſly propagated and eagerly followed, to the no ſmall Detriment of the Art of Healing, and the endangering the Lives of Millions of unhappy Patients. Attempts like theſe muſt needs be fruitleſs and vain; for all ſedate and ſagacious Enquirers muſt be forced to own, that every Animal Function and the Progreſs of Nature, in all Diſeaſes, diſdain the Efforts of human Reaſon to bring them under Subjection. The vital Principle, and ſpontaneous Motion of the moſt deſpicable Inſects remain impenetrable Secrets; and the pretended Diſcovery of *Leewenhoek* relating to the *Primordia* of Animals is a moſt glaring Inſtance of the Folly

and

and Credulity of Mankind. A modeſt Philoſopher will ſtudy to find out the proper Objects of our Knowledge, and how far well directed human Enquiries may probably reach. He will likewiſe make a judicious Application of his Diſcoveries, and not ſtretch mechanic Laws beyond the Limits appointed by Nature.

Let none think that Medicines are to be given at Random, in every Stage of acute Diſeaſes; for here the Phyſician's Judgment is abſolutely neceſſary. And the ſeaſonable Exhibition of a Remedy, after the Guidance of Nature, will always diſtinguiſh the able Practitioner from the dangerous Quack. For this Reaſon, I have been careful in reciting all the Symptoms of Diſeaſes, and their natural Progreſs to Recovery or Death.

There is nothing I would recommend more to a Practitioner, than Affability and Sweetneſs of Temper, with Regard to the Patient, and to take all prudent Methods to keep up his Spirits; nay, even when in a Diſeaſe it is neceſſary to wait to obſerve the Tendency of Nature, it will not be amiſs to give innocent Trifles, to convince him he is not neglected. For when a ſick Perſon is perſuaded that he has a diligent and able Phyſician, that very Perſuaſion will contribute greatly to promote the Cure. On the other hand, there is nothing more dangerous than a fatal Prognoſtic; for this, inſtead of demonſtrating ſuperior Knowledge, too often either dejects the Patient, and haſtens his Exit, or proves the would-be *Æſculapius* to be a mere Medicaſter, who, perhaps, would be better pleaſed with a ſiniſter Event, than to ſee his Skill in Predictions baffled by a Recovery, which would plainly prove him to be no infallible Conjurer.

I would alſo adviſe, that Regard may be paid to the Patient's Appetite, or longing for any particular Thing, however incongruous it may ſeem; ſince we have been taught by Experience, that Gratifications of this Kind have frequently been attended with a ſalutary Effect. Thus cold Water, Grapes, Oyſters, Herrings, and the like, have cured the Diſeaſe when the Phyſician has attempted

tempted it in vain. Examples to confirm this are frequent in accurate Writers; and *Tulpius*, in particular, affirms, he has known the like happen an hundred Times in the Quartan Ague, and Dropsy.

Analagous to this is the *Pica*, or Longing of pregnant Women, who frequently eat and drink what would be highly prejudicial to others, both as to Quantity and Quality. And it is well known what terrible Consequences have ensued when the Things longed for could not be obtained, or have been denied: So necessary it is to follow the Indications of Nature.

With Regard to the *Solanum*, I am afraid the Effects of it are very dubious; for though *Junker* says he has seen a most deplorable *Cancer* cured by it, yet he speaks of it in such a Manner as to give little Encouragement for bringing it into Practice in Cases of this Kind; and I wish I could say the Hospitals had found the Virtues of it to answer their Expectations. However, as the Use of the *Solanum*, especially of the Garden Kind, is attended with no dangerous Symptoms, but has met with Success in some Cases, it may serve to revive the Use of certain Vegetables, which are commonly called Poisons; though there are many Drugs used in Medicine more worthy of that Name; for every one knows that very large Doses of a drastic Purge will as certainly kill, as the most deleterious Vegetable of them all. It is likewise certain, that *Semina Hyosciami*, *Cicuta*, &c. may be safely given in larger Doses than *Opium*. Now as these act more directly on the Brain, perhaps they may not be improperly given to rectify the Disorders which proceed from that Part. This may seem a Paradox, but it is not wholly unsupported by Authority; for Sir *Theodore Turquet de Mayerne* affirms, that *Sem. Hyosc.* are an excellent Remedy against the Epilepsy, if taken for forty Days. The Dose at first is six Grains, which must be gradually increased to twenty. *Paul Herman* prescribed a Scruple for an *Hæmoptoë*, and *Hoffman* has considerably enlarged the Dose. With Regard to the *Cicuta major*, I

have been lately informed that it has cured Madneſs; and at preſent it is by ſome extolled for Cancers. The Root has formerly been given inwardly with Safety. *Pettiver* declares, he has taken half an Ounce of it at a Time, without any bad Effect; and Dr. *Bowles*, as we are told by *Ray*, affirms, he has given a Scruple of it in malignant Fevers, and before the Fit of a Quartan Ague, as the beſt Diaphoretic then known. *Reanalmus* gave the Powder of it in Wine from one Scruple to two, and from one Dram to two in Infuſion, againſt a ſchirrous Liver and Pancreas, with happy Succeſs.

This being the Caſe, there can be no Harm in making a Trial of their Effects in deſperate Diſeaſes, and where there is no Cure to be expected but by the Aſſiſtance of ſome powerful Agent.

In this Sixth Edition the ſeveral Articles in the Appendix to the laſt Edition are properly diſtributed through the Volumes, with the ſeveral recent Diſcoveries and Improvements in the Art of Medicine which have been made both in *Great Britain* and other Parts of *Europe*. So that, upon the whole, it is hoped, that this Work will be conſidered as a uſeful Repertory which young Phyſicians may eaſily conſult for their Information and Direction, and which thoſe of a more advanced Claſs may have Recourſe to, for the Methods and Opinions of their moſt celebrated Cotemporaries.

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THE INTRODUCTION.

Of ENQUIRIES *to be made relating to the* PATIENT.

TO obtain a competent Hiſtory of any Diſeaſe, ſuch Enquiries are to be made, and Circumſtances known, as ſhew the *Genus* and *State* of the ſame; alſo the Operations and Effects of the Medicines are to be carefully obſerved. A particular Regard muſt be had to the *Symptoms*, which differ ſtrangely in different Subjects, on Account of the various Conſtitutions of different Bodies. For we often ſee the ſame *Aliment*, the ſame *Cathartic*, the ſame *Emetic*, and even the ſame *Poiſon* produce various Effects in different Conſtitutions: Likewiſe the morbific Cauſes of the ſame Nature produce different Appearances of the Diſeaſe, with regard to the Symptoms and Event, according as the Subjects differ.

It will be therefore neceſſary to enquire into the Age, Sex, Structure, and natural Habit of the Body, as well as the acquired Habit and Strength of the Patient, and whether he has an hereditary Diſpoſition to this or that Diſeaſe. In Childhood there is a remarkable Softneſs of the Fibres, a lax and thin Habit, with an Abundance of *Serum*: Young Perſons have tenſe and contractile Fibres, with more hot Blood, which is alſo more apt for Motion; thoſe that are old have a great Rigidity of the Solids, and a Straitneſs of the Paſſages, Veſſels, and Canals, with a *ſalſo-ſulphureous Dyſcraſy* of the Humours. From this different Conſtitution of the Parts ariſe the different State and Mechaniſm of the Solids and Fluids, and a Proneneſs to certain Diſeaſes; as alſo the Variety of Manners and Inclinations.

Likewiſe Regard muſt be had to the Female Sex: For they are not only obnoxious to diſtinct Diſeaſes, which ariſe from Diſorders of the Menſes and Child-bearing, but the Syſtem of their Nerves is likewiſe more weak, whence they are more liable to ſpaſtic and convulſive Diſorders, and are more eaſily reſtored to Health than Men.

It is likewiſe proper to know whether the Patient be of a lax or tenſe Habit of Body; whether the Veſſels are ſlender and numerous, or large and few; becauſe in narrow and ſlender Canals, the progreſſive Motion of the Fluids is more difficult, as well as the Secretions and Excretions; for theſe are more quick and ready when the Fibres are tenſe, and the Veſſels pretty large. Whence we may obſerve, that they are more liable to Diſorders, and grow well with more Difficulty, whoſe Fibres are more ſtrong, and whoſe Circulation of the Fluids is more quick. The ſame alſo may be ſaid of lean and fat Perſons.

Regard is alſo to be had to the Colour of the Face and Skin. A fair, florid, and clear Complexion, ſhows the Purity and the Pellucidneſs of the lymphatic Fluids: If it be livid, lurid, and yellow, it diſcovers a *ſalino-ſuphureous Impurity* of the ſame, and a diſordered Secretion in the proper Organs, eſpecially of the Liver.

It appears from daily Obſervation, that the Debility, Defects, and Faults of the *Viſcera* and Fibres, as well as Diſeaſes proceeding from thence, often deſcend to the Children; and the Practitioner ſhould be informed hereof. For hereditary Imbecillities and Weakneſſes are more difficult to be cured, more readily return and tire the Phyſician's Patience, than others.

It is likewiſe neceſſary to know the *Strength*; whether the Patient's Spirits are low, eſpecially in the Beginning of an acute Diſeaſe; for Weakneſs and Lowneſs are then bad Signs. But if the Perſon is in Strength and Vigour, which appears from the Motion and Impulſe of the Fluids, there are great Hopes of recovering Health.

We are not only to examine the Condition of the Body, but the State of the Mind, and what Diſorders it is liable to; becauſe there is a wonderful Connection between the Mind and the Body. A greater Tenſity and Mobility of the Fibres and Solids diſpoſes the Mind to *Anger*; whereas a Laxity and Defect of the *Vis motrix* ſhow the Perſon to be diſpirited, timid and fearful. On the other hand, *Anger* increaſes the Tone and Contractions of the Solids, and renders the Fluids more impetuous, but *Timidity* diſſolves and dejects the Strength; whence the Circulation of the Fluids is more ſlow. *Terror* greatly conſtringes the Surface and extreme Parts of the Body, and drives the Blood to the interior

rior and noble Parts, that is, the *Præcordia* and *Head*; whence proceed grievous Diſorders, eſpecially of the *Genus nervoſum*, which it enervates and renders languid. The ſame may be ſaid of *Sadneſs*, which often proceeds from a Defect of the *Viſcera*, and a faulty Circulation of the Fluids, as in the *hypochondriac Paſſion*; but when its hurtful Influence attacks the ſolid Parts, it wonderfully dejects the Strength of the whole Body, and hurts its Functions, relaxing and leſſening the Strength of the Fibres.

If the Mind is not compoſed and at Eaſe, but ſubject to various Paſſions and Commotions, Diſeaſes are cured with greater Difficulty; therefore Enquiry is to be made, whether the Patient is not addicted to hard Study, and to profound and fatiguing Meditations, which is common in thoſe who apply themſelves to the Sciences of *Metaphyſics* and *Mathematics*, and are fond of *nocturnal Lucubrations*; for intenſe Thinking conſumes the Spirits, and brings on a Weakneſs of the Brain and nervous Parts; whence they are ſubject to dangerous Diſeaſes of the Head, namely, *Apoplexy*, *Melancholy*, *Madneſs*, and *Weakneſs of Memory*.

It can hardly be imagined what a Conſent there is between the Brain and its Membranes, between the Stomach and the adjoining Inteſtines, they being greatly nervous, and indued with an exquiſite Senſe; whence many Students are troubled with a bad Digeſtion, Coſtiveneſs, and the *hypochondriac Paſſion*.

Beſides, it is neceſſary to conſider the Place where the Patient lives, the Nature of the Air, and his uſual Diet. Places that ſtand high expoſed to the Winds, have a more pure and ſalubrious Air; thoſe that are low, breathe an Air which is more condenſed, more thick, and full of impure Vapours; than which nothing can tend more to generate grievous and chronical Affections, and to deſtroy the Vigour and Strength of the Solids.

With Regard to Diet, Enquiry muſt be made whether they feed groſly, and live upon Fleſh that is ſmoak-dried and ſalted, and coarſe Bread; to which thoſe who inhabit maritime Places being accuſtomed, are ſubject to a *Dyſcraſia*, or a ſcorbutic Impurity, which is endemic in thoſe Parts: Or whether the Patient has been uſed to eat Summer Fruits, Sallads, farinaceous Things fryed with Butter, Eggs, and ſuch like. Some delight in Cheeſe, and feed upon it immoderately, which produces Obſtructions, and generates Gravel. Next, Enquiry muſt be made into their Kinds of Drink; which, if it be temperate, aqueous and diluting, it is more healthy. Hence groſs nouriſhing Malt Liquors, eſpecially if ſtale, as well as Wine and Spirits drank upon an empty Stomach, tend greatly to the Deſtruction of Health: By theſe the *Viſcera* are indurated, polypous Concretions are generated, and the *Temperies* of the Humours diſturb-

ed; whence a Hectic, a Cachexy, a Dropſy, an Apoplexy, or ſudden Death.

When a Man wants Plenty of Fluid to preſerve Health, nothing can be worſe than to drink too ſparingly; for the ſmall Tubes become obſtructed thereby, and are filled with viſcid and groſs Humours, which are fruitful of various Diſeaſes.

Beſides, it is neceſſary to be known, whether the Patient has drank cold Liquors when he was in a Sweat, and exceeding hot, as it is a common thing to drink too freely and quickly of cold Liquors, after Exerciſe or violent Paſſions of the Mind, or after a critical and ſalutary Excretion of Blood; whence the whole Oeconomy of the vital Motions and Functions is diſturbed and perverted, inſomuch that Poiſon itſelf cannot have a more ſpeedy or more pernicious Operation.

Enquiry muſt be made into the kind of Life, whether it be laborious or inactive; accuſtomed to Exerciſe or ſedentary; whether the Perſon be a Courtier or a Soldier, a Student or a Tradeſman; whether he be converſant among Metals and Minerals, or works at the Fire; for every kind of Life produces particular Diſeaſes: Thus Braſiers are ſubject to Diſeaſes of the Eyes; Huſbandmen to thoſe of the Breaſt; Makers of Starch to Coughs and Phthiſicks; Porters to Aſthmas, Ruptures, and burſting of the Veſſels in the Breaſt; Tallow-Chandlers to Diſeaſes of the Head and Stomach; Workers in Tow, Hemp, and Silk, to Shortneſs of Breath; Leather-dreſſers are generally cachectic and hydropical; Runners of Races are often troubled with a Shortneſs of Breath, and ſpit Blood; Carpenters are ſubject to ſore Eyes; Nightmen are apt to be blind; Plaiſterers are troubled with Shortneſs of Breath, and Conſumptions; Waſherwomen are liable to Difficulties of Breathing and Dropſies; Makers of Oil are cachectic and aſthmatic; Plumbers are frequently paralytic; Houſe-painters are generally Valetudinarians, cachectic, coſtive and paralytic; Fiſhermen have Ulcers in their Legs; Bakers are troubled with Coughs, Hoarſeneſs, and Lippitude, as as well as a Conſtipation of the Pores; Cutters of Tobacco are ſubject to the Vertigo, and the like.

As there are no Perſons but what are apt to be guilty of an Exceſs of one kind or other, it will be neceſſary to enquire into their Diet, Drink, Sleep, Exerciſe, Uſe of Tobacco, *&c.* In our Age the Drinking of Coffee is very common; hypochondriac Patients are generally exceſſive in the Uſe of Medicines and other Things; all which Errors have ſome Influence upon the Body, and ought to be enquired into and conſidered.

Another thing to be examined is the *Excretions*; for unleſs theſe are regular, Health cannot be maintained, and therefore

if they are too plentiful, defective or ſuppreſſed, they will cauſe various Diſorders. Hence if a Perſon begins to be coſtive, it is generally the Forerunner of ſome Diſeaſe. Regard is alſo to be had to Perſpiration, which carries off more Matter than all the Emunctories beſides. This depends greatly upon Cloathing, and keeping the Body in equal Warmth, as alſo upon the Warmth and Moiſture of the Feet: On the other hand, if the Feet are dry and cold, and their Pores contracted, it ſhows that Perſpiration is ſtopt. Hence if in cold, moiſt, changeable, and unequal Weather, as alſo in the vernal and autumnal Seaſons, the Perſpiration of the Body is greatly diminiſhed, it becomes languid and ſubject to the reigning Diſeaſes.

As a Man generally takes more Aliment than is neceſſary to generate Blood and Serum, and the common Excretions are not ſufficient to carry off ſuperfluous Humours, extraordinary ones ſometimes happen at ſtated Times: Hence the Bleeding Piles and Hæmorrhages of the Noſe, as alſo large Sweats, Looſeneſſes, Running at the Noſe, Coughs, plentiful Spitting, all which tend to promote Health; and if theſe are defective or ſuppreſſed, dangerous Diſeaſes may ariſe. Wherefore it is highly hazardous to ſuppreſs Secretions of this kind: Hence great Paſſions of the Mind, eſpecially Terror, which conſtringes the ſmall Veſſels, very cold Air, and ſudden Refrigerating of the Body, produce dangerous Stagnations of the Fluids, and ſudden and capital Diſorders in the vital Motions. The ſame may be ſaid of critical Excretions, if unadviſedly ſtopt; for they not only renew the Diſeaſe, but render it much more dangerous.

The Practitioner ſhould likewiſe enquire what Diſeaſes the Patient has been ſubject to, at what Time, and how cured; for it often happens, in the raſh and imprudent Cure of Diſeaſes, that terrible and dangerous Symptoms are produced, and that the driving away one Diſeaſe is productive of a much worſe: Likewiſe the Patient ſometimes will not obſerve any Rules, but daily committing Errors in the Non-naturals, accumulates the morbific Matter afreſh, and contracts a Diſeaſe.

Sometimes Diſeaſes are ſtrangely complicated, inſomuch that if the Patient was affected with a hypochondriac Paſſion, or a Cachexy, Scurvy, Debility of the Head, Spitting of Blood, Conſumption, Piles, Gravel, or Gout; another Diſtemper ſupervenes, which requires the utmoſt Prudence, and a different Method of Cure.

It is likewiſe neceſſary to enquire whether the Patient is plethoric, or abounding with bad Humours, or cachochymic; what is the State of the Stomach and Inteſtines, whether ſubject to Eructations, Wind, and Spaſms, with Coſtiveneſs, and if he be hy-

pochondriac; what is the Condition of the Liver; whether the Circulation thro' it be impeded; whether the Bile is duly ſecreted; which will appear from the Colour of the Face, and the diminiſhed Nutrition of the Body. Moreover, Enquiry muſt be made into the State of the Lungs, and whether they are whole and ſound; which will appear from the Breathing being eaſy or difficult, and the Kind of Spittle which is rejected. Laſtly, the *Temperies* of the Brain and nervous Syſtem is to be examined, and determined from the Nature of the Sleep, Affections of the Mind, and Diſturbance of the Imagination.

Theſe Things being conſidered, we muſt proceed to the Diſeaſe itſelf, as, whether it be common or epidemic; whether the Virulence appears on the Skin in Puſtules, or otherwiſe; whence the Crudity and virulent Nature of the Matter which forms the Diſeaſe may chiefly be known; becauſe while it remains on the nervous Parts, it produces Anxiety of the *Præcordia*, Coldneſs of the Extremities, reaching to vomit, Pains of the Head, and Back about the firſt *Vertebra* of the Loins; Quickneſs and Hardneſs of the Pulſe, Diſturbance of the Mind, and Difficulty of Breathing: But when it is expelled to the Surface of the Body, theſe ſeverer Symptoms generally remit, and are in ſome Degree appeaſed. Enquiry muſt likewiſe be made whether the Patient was ſeized with a great Proſtration of Strength, and remarkable Languor of the Parts; whence the occult Corruption of the Humours, commonly called Malignity, may probably be known.

As there is no Fever, or other Diſeaſe, which has not ſenſible Remiſſions and Intermiſſions of the Symptoms, the Phyſician ought to know the State of the natural, vital, and animal Functions, as well in, as out of the Paroxyſm. For in the Acceſſions, *Impetus* and Strength of the Diſeaſe, when the Motion of the Solids and Fluids are more intenſe and quick, it is neceſſary that all Things which increaſe and exaſperate the Motions and Excretions ſhould be quite omitted; but on the vacant or intercalary Days, when the Fit is off, and all the Motions are weak, eſpecially the Pulſe, thoſe Things may be uſed which ſerve to move and exterminate the peccant Matter: And more eſpecially in the Increaſe of Diſeaſes, the animal, vital, and natural Functions are to be regarded; becauſe from the Degree of the Diſorder of theſe, the Violence of the Diſtemper is to be determined.

In acute Diſeaſes we may know the Genus and Force of the Diſorder, from the Reſpiration, and the Nature and Condition of the Pulſe. There is an evident Agreement between the Brain and the Heart; for all Diſeaſes of the Brain and Nerves, all Affections of the Mind, produce a Change in the Pulſe. Beſides, as no Patient dies without an Inflammation and inter-

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nal Mortification, and as the Inflammations of the Stomach and Membranes of the Brain are produced eaſily in acute Diſeaſes, and as in the chronic the Mortification of the *Viſcera* put a ſudden Period to Life, the Phyſician ſhould carefully attend to theſe fatal Symptoms, in order to manage the Diſeaſe with greater Certainty.

Likewiſe the State of the *Primæ Viæ* is carefully to be examined, as whether they are replete with *Sordes*, whether the Body is coſtive or otherwiſe, the Quantity, Quality, and Colour of the Excrements; that the State of the natural Functions may be certainly known. Alſo the Conſiſtence, Nature, Quantity and Colour of the Urine ought to be conſidered; from which, being compared with other Symptoms, the ſpaſmodic Strictures of the internal Parts may be known, and the Increaſe or Decreaſe of the preternatural Heat determined.

It will likewiſe be neceſſary to obſerve nicely the Operations of the Medicines, and what Changes they produce; whether the Force and Vehemence of the Symptoms are mitigated or increaſed, or whether nothing of this Kind happens: For Remedies which are profitable to ſome Patients, may hurt others; but the Way not to be deceived, is to obſerve all the Circumſtances and Appearances, which are contained in an accurate Hiſtory of the Diſeaſe, otherwiſe Miſtakes may ariſe; the Strength and Operations of Medicines being always conditional, according to various Conſtitutions, Places, Seaſons, and other Circumſtances.

As many acute Diſeaſes are as often cured without Medicines, by the Benefit of Nature, and domeſtic Remedies, as when the Patient takes great Quantities of the moſt precious Compoſitions; it would advance the Knowledge of Phyſic to obſerve all their Circumſtances, Time, and Order; and alſo with what Excretions, with what Succeſſions of Symptoms the Diſeaſe advances, and is at laſt terminated. For it ſometimes happens that Phyſicians are called in, and preſcribe their *Arcana*, and think they have cured Diſorders thereby, which would have ended by the ſole Benefit of Nature.

Many Diſeaſes, and eſpecially Fevers of all Kinds, attack divers Perſons at once, and are attended with particular Symptoms, requiring ſometimes one Kind of Management, and ſometimes another; therefore the Cauſes of theſe Diſeaſes can be nothing elſe, but ſuch as are common to many Men, and equally affect them all. The moſt common of theſe is the unhealthy State of the Air, which is a Fluid abſolutely neceſſary to the Preſervation of Life: wherefore Changes of the Air muſt affect the *Temperies* and Conſtitution of the Solids and Fluids, and produce preternatural Habits. This is evident from the different Seaſons

of the Year, from the Changes of Weather, and the Variety of Winds, which produce very ſenſible Effects.

But the State of the Air alone is not ſufficient for the Generation of epidemic Diſeaſes. For it is evident from Obſervation, that in the ſame Climate, and ſame Conſtitution of the Heavens, a Diſeaſe ſhall infeſt the Inhabitants of one Place, and not another; as appears from the Small-pox, Dyſenteries, and Miliary Fevers. Wherefore Recourſe muſt be had to the Nature of Exhalations from Pools and marſhy Places, which are replete with ſulphureous, vitriolic, aluminous, bituminous, ſaline, and other Particles; which Variety of *Effluvia* cannot be demonſtrated more plainly than from the Diverſity of Malt Liquors, which, though they are brewed from the ſame Malt and Hops, and in the ſame Manner, excepting the Water, wonderfully differ in Taſte, Colour, and Virtue.

Regard muſt likewiſe be had to the different Way of Living, and Kinds of Aliment, from whence the Cauſe of Epidemic Diſeaſes differ in their Nature, Matter, Texture, Power, and Virtue; and affect the Structure and Motion of the Body in a preternatural Manner. Theſe Cauſes and concurrent Circumſtances being known, an epidemic Diſeaſe may be predicted, and the beſt Method of Cure be adviſed. This indeed is a difficult Taſk, but the Hopes of performing it are not altogether to be deſpaired of, eſpecially if ſkilful Phyſicians, well inſtructed in the Nature of Things, would unite their Counſels, and obſerve, in divers Places, every Day in the Year, the Changes of Weather, the different Seaſons, the Diverſity and Shifting of the Winds, the State of the Barometers and Thermometers, as well as Hygrometers; determining the Differences of Moiſture and Dryneſs, Heat and Cold; the Situation of Places, the particular Kind of Diet, eſpecially that which coincides with epidemic Diſeaſes; what Symptoms theſe are attended with, what their common Event is, what Medicines are ſalutary, and what noxious.

Of diſtinguiſhing one DISEASE *from another.*

THE Method of diſtinguiſhing the various Kinds of Fevers is prefixed before the Account of theſe Diſeaſes, and therefore is omitted in this Place. I ſhall therefore proceed to the moſt frequent and common Diſtempers of a different Sort, eſpecially thoſe that ſeem nearly allied to each other, and for that Reaſon

more

more liable to be mistaken; which may mislead the Practitioner into the most fatal Errors.

I shall begin with *Hæmorrhages*, and particularly Spitting of Blood, or an *Hæmoptysis*; which is a Rejection of florid Blood from the Lungs. This should be carefully distinguished from Bloody Spittle, which proceeds from the *Oesophagus*, *Fauces*, and Nostrils, and is rather brought up by hawking than by coughing; besides, it is not so copious, is mixt with Phlegm, and is of an obscure bloody Colour. Likewise a true *Hæmoptysis* may be known from that Spitting of Blood, which proceeds in a smaller Quantity, from a Disorder of the Vessels of the *Aspera Arteria*, and is brought up with coughing, and commonly attended with itching, and a salt Taste. An *Hæmoptysis* differs greatly from a vomiting of Blood, because in the former the Blood is thin, very florid, arterial, and not brought up without labour and straining; whereas in a vomiting of Blood it is brought up without coughing, thick, coagulated, and black, and chiefly proceeds from the internal Veins of the Stomach. Neither is vomiting of Blood of one single Species, but as it differs with regard to its Causes, for it requires a different Method of Cure. One Kind proceeds from a corroding Caustic, contained in the Stomach, as in Poisons and violent Emetics; another Sort arises from an impetuous Motion of the Blood, brought from other Parts to the Vessels of the Stomach, which are easily burst, as is the Case from a Suppression of the usual sanguineous Evacuations: This Kind of Vomiting generally observes some stated Periods.

In the Kinds of *bloody Urine*, one proceeds from a rough Stone, lacerating the *Urethra*, or its Vessels, which is not very common, even to nephritic Persons; and then but a small Quantity of Blood is voided. But if it is attended with a violent *Impetus* of the Blood, and flows violently to the Kidneys from other Parts, it is generally without Mixture, and without any particular Complaint or Sensation; and when it separates from the Urine, is not red, but of a browniſh yellow Colour. A Disorder not unlike this attacks Persons advanced in Years, who are full of Blood and Humours, but often without any Danger.

The *Flux of Blood*, which sometimes happens to pregnant Women, without any Danger to Health, ought to be distinguished from that which threatens Abortion. If it only happens periodically for three or four Months, then it is salutary; but if the Flux be large, and proceeds from the Vessels of the *Uterus*, it is dangerous both to the Mother and *Fœtus*. If the Flux is violent, it shews a total Separation of the Secundines, and that Abortion will follow; if it be moderate, the *Fœtus* may be saved. If this Flux corresponds with the

Period

Period of the *Catamenia*, and the *Os Uteri* is closed and without Pain, the Flux does not proceed from thence.

Moreover, a Flux of the Piles or *Hæmorrhoids* is to be well distinguished from a Dysentery, since they both agree in this, that in each Disorder the Blood is mixed with the Excrements. In the Piles the Blood flows without any Pain, or Spasms, and is sometimes critical and healthy; on the contrary, a Dysentery is attended with the most violent Spasms and painful Gripes, and the whole Body is in high Disorder; especially if the small Intestines are affected: for then, on the first Days there are Vomiting, Hiccup, Anxieties of the *Præcordia*, Loss of Appetite, and great Weakness. The *White Dysentery* differs little in its Nature from the red; in the white, little Blood comes away, but great Quantity of *Mucus* is excreted; but in the red the Blood is more copious, with small Pieces of Films, or fleshy Fibres.

We now come to *Pains*, of which those of the Head are most common. If the *Head-ach* is caused by a more impetuous Congestion of Blood in the Head, with Heat, Redness, and Swelling of the Face, and a great Pulsation of the Arteries of the Neck and Temples; the Pain and Heat sometimes extend as far as the Bulbs of the Eyes, with Coldness of the Extremities. If the Head-ach is inveterate, and the Offspring of venereal Contagion, it is generally more violent in the Night, is fixt to a certain Part, and the Skin is often raised by a Kind of Swelling. Besides, the Cause of a Pain in the Head often lies in the external Parts of the Skull and *Pericranium*; for if it is in the Membranes of the Brain, it is attended with a *Vertigo*, Redness of the Eyes, a *Stupor*, Oblivion, Difficulty of Hearing; and even a Palsy, or an Apoplexy precedes or follows it.

Another Cause of the *Head-ach* is an Effusion of *Serum* and Blood from the Vessels into the Sinuosities of the Bones of the Forehead; in this Case the Pain is obstinate, sharp, fixed, and situated in the Bottom of the Forehead, and above the Eyes, never ceasing Night or Day. Sometimes the Head is disordered from Crudities in the Stomach, which appear from Belching, Inflammations, and Spasms of the *Primæ Viæ*, and the Pain is increased by flatulent Food, but is lessened by vomiting and evacuating Stomachics. Another Cause of *Head-ach*, but less known, is the extravasated *Lympha* in the Ventricles of the Brain, which stagnates and is not carried off by the *Infundibulum*, or pituitary Gland; in which Case the inward Parts of the Head are continually in Pain, which cannot more certainly be eased than by abstaining from Drink, and taking things which evacuate *Serum*, or Diuretics, in chachectic and cacochymic Disorders.

The

The Heat of the *Cardialgia* exceeds all others for Sharpneſs. Its Seat is the upper Orifice of the Stomach. Sometimes the Cauſe of it lies in the Stomach, and is a ſharp, cauſtic Matter, as in Caſe of Poiſon; in the *bilious Paſſion* or *Dyſentery* it proceeds from a very ſharp cauſtic Bile. Another *Cardialgia* proceeds from a Suppreſſion of the uſual ſanguineous Evacuations, which regurgitate to the nervous Membranes of the Stomach. The Cure conſiſts in Bleeding and Cupping: But when it proceeds from a ſharp cauſtic Matter, the Pain muſt be appeaſed by Demulcents, oily temperating Medicines, Aſſes Milk, or a ſaturated Infuſion of Camomile Flowers with Cream, as alſo abſorbent Powders. *A Cardialgia* ſhould be well diſtinguiſhed from a painful Inflation of the Stomach, when it is wonderfully diſtended with Wind. In this Diſorder the Pain is under the ſpurious Ribs, chiefly on the Left Side, and under the Pit of the Stomach towards the Right; the Tumor is like a Bladder diſtended with Wind, and is not uncommon; it brings on a great Difficulty of Breathing with Anxiety; it is the greater the more the *Diaphragm* is thruſt upwards by the diſtended Stomach, and hinders the Expanſion of the Lungs. This Diſorder is moſt common to ſucking Infants, when the Milk ſtagnates in the Stomach, and being coagulated and corrupted is rarified into Wind. It is pretty common to hypochondriacal Perſons, eſpecially if they eat too freely, for by Indigeſtion a great deal of Wind is generated.

It is likewiſe neceſſary to diſtinguiſh the Pain of the *Colic*, from that of a *Stone* deſcending by the Ureters; for in the Stone of the Kidneys there is a deep preſſing Pain, which ſeems to be fixt in the Loins, attended with a little Shivering; it likewiſe is accompanied with Vomiting and Pains in the Belly when the Stone is paſſing downward through the Ureters; then the pain extends to the Region of the *Os Iſchium*, and brings on a Stupor of the Thigh of the affected Side: There are likewiſe frequent Inclinations to making Water, attended with a Strangury, and Gravel often comes away. But the Pain of the Colic is otherwiſe; for then the Pain and Gripes are more about the Navel, ſhifting from Place to Place, and the Belly is often diſtended with Wind. But it often happens that the Colic is nephritic, which may be known from grievous Pains in the Belly, Coſtiveneſs, Vomiting, Head-ach, Coldneſs of the Extremities, a *Stimulus* to make Water, till the Fit being ended Gravel comes away. The Colic which torments Hypochondriacs lies in the *Hypochondria*, and the left Side, is apt to ſwell from Wind in the Flexures of the *Colon*, and this Pain returns oftener than the Colic.

If

If the Wind is the Cause of the Pain of the Intestines, then there is a manifest Inflation of the *Abdomen*, sometimes so great as to cause a Wind Rupture in the Region of the Navel. When Persons are subject to this Disease it proceeds from a hasty Refrigeration of the *Abdomen*, or the Feet, or from feculent Drink, or flatulent Food, especially if cold Liquor is drank after it. As many Persons who are troubled with the Gravel are liable to a flatulent Colic, the nephritic Colic is often confounded with it.

But if the *Pain of the Intestines* is attended with Flatulencies, great Anxiety, and a tensive Pain of the Back, with Costiveness which returns upon the slightest Occasion, and the Face is cachectic, then the Cause of the Disorder generally lies in the *Viscera* of the *Abdomen*, thro' which the Blood does not circulate readily and freely, but stagnates in the Volume of the Intestines, and finding no Exit through the hæmorrhoidal Vessels, continues between the Membranes of the Intestines, distending and teazing them; whence proceeds that Colic which is called convulsive, because the nervous System is grievously afflicted thereby. This Stagnation of the Blood, if it proceeds from a Suppression of the Hæmorrhoids, produces a violent Pain in the Intestines, which is said to be hæmorrhoidal; and if it proceeds from an Irregularity of the *Menses* in Women, the Blood returns back to the Volume of the Intestines, and produces Gripes, which are called an hysteric Colic. Another Kind of Colic is the bilious, and is common to Men of choleric Constitutions, prone to Anger and of great Sensibility. This is generally attended with Vomiting, the Head-ach, or a *Diarrhœa*, and because the free Descent of the Bile to the Intestines is hindered by a spasmodic Constriction, it regurgitates to the Habit of Body, and produces a yellow Colour in the Face.

It is likewise necessary to distinguish a convulsive Colic from the other Kinds; for it disturbs the nervous and membraneous Parts of the whole Body, by consent, in a terrible Manner, insomuch that a violent Spasm is spread thro' the whole System of Nerves, and then not only the Stomach and Intestines are drawn upwards and downwards with obstinate Costiveness, but the Muscles of the Belly and Navel are drawn inward. If the Nerves of the Lungs are affected by the Violence of the Spasm, the Breathing is very short and difficult, with a strong Motion of the *Thorax*. When the Disorder increases the Membranes of the Brain and Nerves are affected, whence a *Vertigo*, *Scotomia*, slight Delirium, Watching, and great Coldness of the extreme Parts, with a most violent Agitation of the Feet and Arms, which not seldom ends in a Palsy of these Parts.

Workers

Workers in Metal are greatly ſubject to this Diſeaſe, eſpecially thoſe that are concerned in melting Lead, and draw the Steams in with their Breath. Likewiſe the Scorbutic and Cachectic are liable to it, as well as thoſe in whom the hæmorrhoidal Flux is ſuppreſſed, or irregular, or who have had an Ague imperfectly cured by Aſtringents. Sometimes it proceeds from Worms, or from a Stone in the bilious Ducts. Hence we plainly ſee the Fault is not material, moveable, or eaſily corrected or evacuated, as in the flatulent and bilious Colic, but is rather in the nervous membranaceous Parts, which are readily brought into theſe ſpaſtic Motions. Sometimes the *Cardialgia*, and convulſive Pain of the Inteſtines, in very ſenſible Bodies, proceeds from ſtrong Affections of the Mind, Terror, frequent Anger, ſpirituous Liquors, and the like.

There are great Miſtakes committed with Regard to the *Gout* and *Rheumatiſm*. The Pain in both is ſpaſtic, and infeſts the membranaceous Parts with Redneſs, Heat, Pain, Swelling, and Loſs of Motion; but the arthritic Pain proceeds from a ſharp tartareous *Serum* in the Joints, and the Rheumatiſm is derived from a ſerous ſalino-cauſtic Matter, ſituated externally in the Membranes of the Muſcles and Ligaments of the Joints. In the Gout, the mucous Glands of the Joints and glandulous Ligaments contain the arthritic Matter: On the contrary, the ſtagnating acrid *Serum* of the Rheumatiſm too plentifully congeſted in the Veſſels from the Blood, is collected between the Interſtices of the Membranes and Muſcles. Whence the Reaſon appears why the Cure of the Rheumatiſm is more eaſy than that of the Gout, and why Topics will mitigate the Pains of the former, and not of the latter.

The *Gout* muſt likewiſe be diſtinguiſhed from *venereal* Pains; for the Gout is more violent in the Day, the *Lues venerea* in the Night; the Gout has alſo a febrile Commotion, the other not. The Gout has likewiſe ſtated Times, and is exaſperated with ſharp Medicines, Mercurials, and the like; whereas the *French* Diſeaſe is mitigated by theſe. There is beſides a peculiar Difference between Pains of the Joints, of the Legs or Feet, with Tenſion, Stiffneſs, Imbecillity of moving, and raging epidemically, and true arthritic Pains. At ſome Times, and in ſome Conſtitutions of the Air, we frequently meet with Pains in the Legs, of which ſome are tenſive, others obtuſe and dull; others pungent, lying among the Bones of the *Tarſus* and *Metatarſus*, with Immobility, *Stupor*, and Rigidity of theſe Parts; which Pain is increaſed by Motion. Thoſe are ſubject to it who are bled in the Foot, and expoſe themſelves to cold Air, after which comes on Weakneſs of the affected Member, and then Pain, which

continues for ſome Months, and is miſtaken for the Gout; but there is no Fever, nor Swelling, nor Redneſs, nor Heat, neither in the Joints, nor in the *Perioſteum*; and therefore cannot be called the Gout.

Let us now proceed to thoſe *convulſive* and *ſpaſmodic* Diſorders, called *Coughs*. Of theſe are ſeveral Kinds. If the Cauſe of the Cough is in the Lungs, there is a Difficulty of Breathing, which is increaſed upon Motion, or Agitation of the Body or Blood; likewiſe there is often a ſhrill Voice, or preſſing Pain in the Breaſt and a Hoarſeneſs. If it be dry, and continues long, there are generally hard Tubercles, or *Vomicæ*, full of Matter, and the Cough is conſumptive. But if it be moiſt, and great plenty of viſcid Matter is brought up, it is a Sign there is a Collection of Matter in the Cavity of the Lungs. In this Diſorder there is a Difficulty of lying on the affected Side, and pure Matter, or mixt with Blood, is brought up, which leaves no room to doubt that the Lungs are affected.

The *Tuſſis Stomachalis*, or Stomach Cough, is ſometimes moiſt and ſometimes dry: If moiſt, a thick and copious Spittle is brought up after Meals, generally with Vomiting; the Cough is more violent after Pectorals and ſweet Things, and is troubleſome in a Morning. It is attended with ſpaſmodic and flatulent Diſorders in the Abdomen, neither do the Excretions by Stool continue regular. In a *convulſive* or *hooping Cough*, that is violent and dry, the Cauſe is chiefly in the nervous Coats of the Stomach, and there is a violent Concuſſion of the whole Thorax with a deep Sound; this is greatly increaſed after cold Drink or Acids. In this obſtinate Cough the *Hypochondria* are generally diſordered, or there is a ſcorbutic and ſalt Diatheſis mixt with the Blood; wherefore this Cough is not unfrequently attended with a miliary Fever. If the Matter lurks in the *Duodenum*, which is often the Caſe in intermitting Fevers, eſpecially Tertians, as alſo in hypochondriac Patients, then acid Eructations and Flatulencies manifeſt themſelves, eſpecially in the Paroxyſms after Shivering, with a bilious and acid Vomiting. Children are frequently troubled with Hooping Coughs, partly becauſe the Syſtem of their Nerves is very prone to ſpaſtic Convulſions, and partly becauſe acid and bilious Crudities abound in their Stomach and *Duodenum*. The coughing Fit often ends in Vomiting, ſometimes is quite dry, and one would think that they were in Danger of being ſtrangled.

The *Aſthma* is a common Diſeaſe, and has various Cauſes, which are variouſly ſeated, and make divers Kinds of this Diſeaſe. The common Cauſe is in the Stomach, and then it is a *flatulent Aſthma*; for the Stomach being inflated, hinders

the

the free Play of the Diaphragm. This is frequent in Hypochondriacs, who have a Weakness of the Stomach, from flatulent Food, which is mitigated by Vomiting. A convulsive Asthma is greatly different from that which is *humoral* or *sanguineous*; for it is periodical, and comes on at certain Intervals, chiefly in the Night; the Breathing is sometimes so difficult, that the Patient cannot lie down without Danger of Suffocation. There is often a cold Sweat, which continues for twenty Hours and more, and brings on a Fainting. A constrictive Compression of the Thorax is generally perceived, which often extends to the Neck. This Disease is generally accompanied with a bad State of the *Viscera* of the *Abdomen*, especially of the Liver, whence a Cachexy arises. But if the Asthma proceeds from a polypous Concretion in the Vessels of the Heart, then there is a Palpitation of the Heart. Lastly, the Cause of the convulsive and suffocating Asthma, is a great Extravasation of Water in the Cavity of the Thorax: Out of the Paroxysm there is a fixed Pain in the Side of the Thorax, where the Water is contained, and the Foot of the same Side is apt to swell, or both; and the Paroxysm is long and violent, with great Anxiety, but without a Cough, and is often fatal.

There is a very notable Difference between a *convulsive Asthma* and a *suffocating Catarrh*; for this is a kind of Palsy affecting the Nerves, which serve for Respiration; and comes on unawares, with great Anxiety and Wheezing: The Face is swelled and looks red, and Suffocation is at hand. A convulsive Asthma is a periodical and chronical Disease; but a suffocating Catarrh is more properly reckoned an acute Disease. In this there is perceived a constant Afflux of Matter, which is wanting in the Asthma; likewise a great Loss of Strength more commonly attends a suffocating Catarrh, than a convulsive Asthma. A suffocating Catarrh is more common to Infants, to the weak, and to very old Persons; especially when *Exanthemata* are driven back, such as the Small-Pox, Measles, *Tinea Capitis*, *Achores* of the Face, the Itch, and the like.

We come now to the *Apoplexy*, which is like a *Syncope*, for there is in both a Loss of all the Senses, and yet there is a remarkable Difference; for in this the Pulse and Breathing are not perceptible, the Face is pale, and the Body is cold; but in the Apoplexy the Breathing continues, the Face is often red and florid, the Pulse still beats, and sometimes very strong. But the Difficulty is greater to distinguish the spurious from the true Apoplexy. The spurious is frequently an Hysteric Symptom, and proceeds from the Violence of the Spasms in the *Abdomen*, in which the Blood becoming redundant from the Stagnation of the

Menses,

Menses, is carried to the Brain with Force, stops in its Vessels, and intercepts all Sense and Motion, except of the Pulse and Breath. It is commonly taken for a Syncope, or an hysteric Epilepsy, but not rightly: It is seldom fatal; for when the Stricture is relaxed, or the Patient is let Blood, it easily abates. A true Apoplexy is more dangerous, which, from a bursting of the Blood or *Serum* from the Vessels, is often fatal; likewise the complete Apoplexy is to be distinguished from the partial; for the former proceeds from the bursting of the Vessels of the Brain, the latter from their too great Distension, and the Stagnation of the Blood therein, which frequently induces a Palsy and a Debility of the Senses, but does not kill.

The *Palsy* is likewise to be distinguished into the true and false; the former has its Seat in the Brain, or the Beginning of the spinal Marrow, and takes away almost all Sense and Motion. But the spurious is milder, and has not taken so deep a Root in the Brain, but in some certain Nerves belonging to particular Parts, and only hurts the Sense and Motion. This is often the Consequence of the Colic, and the more grievous cardialgic and spasmodic Affections, especially if there be a Stagnation of the Blood in a Plethora, and being transferred to the Nerves and Muscles, which move the Hands and Feet, deposits there a viscid Serum, which, lodging on the nervous Membranes, induces an Impotence of Motion, the Sense of Feeling being yet unhurt.

An *Epilepsy* must be distinguished from *Convulsions*. For in the former the Membranes of the Brain are affected, in the latter the Membranes and Nerves of the spinal Marrow are more concerned; nor are the Thumbs so greatly contracted, though the Limbs are very forcibly convulsed. Convulsive Motions likewise greatly affect Boys about fourteen Years old, from violent Anger, sudden Terror, sudden Refrigerating of the Body, or Worms; and there is such a strange Distortion and shaking of the Limbs, that it is often attributed to Witchcraft. The Mind in some is likewise disturbed with various Phantasms, if not opportunely and readily cured, which will sometimes come on twenty Times a Day, or oftener. The Epilepsy seems connected with certain Phases of the Moon, and is not so frequent in Adults, generally ceasing about the Time of Puberty. Lastly, a *Catalepsy* differs from an Apoplexy, because the former comes on suddenly, and keeps the Member quite stiff, and in the same Posture, as at the Time of Accession. In both there is an Abolition of all the Senses with a Stupor and Sleep.

Of the PULSE.

THAT oſcillatory Motion, or Beating of the Arteries, which we commonly call the Pulſe, is occaſioned by the Blood's being firſt thrown into them by a quick, ſtrong Effort of the Left Ventricle of the Heart, and then moving on from larger into more contracted Veſſels, whereby the Reſiſtance is more and more increaſed, till in their capillary Terminations it becomes greateſt of all. In Conſequence of this Reſiſtance, the Arteries are diſtended, and this Diſtenſion, or Diaſtole, as ſoon as the diſtending Cauſe ceaſes, that is, when the Flux of Blood into them is ſuſpended, muſt be ſucceeded by a Contraction, or Syſtole, becauſe the Arteries chiefly through their Elaſticity, but partly by their muſcular Contraction, reſtore themſelves; whereby the Blood is urged into the venous Syſtem, the ſemilunar Valves at the Mouth of the Aorta hindering its Reflux into the Heart.

With regard to Motion only, there are but four Kinds of *Pulſe*; *great* and *little*, *quick* and *ſlow*. When *Quickneſs* and *Greatneſs* are joined together, it becomes *violent*; and when it is *little* and *ſlow*, it is then called a *weak Pulſe*. The Pulſe is alſo ſaid to be *frequent* and *rare*, *equal* and *unequal*, but theſe are not the eſſential Affections of Motion; Frequency and Quickneſs are often confounded with each other.

A *Pulſe* is ſaid to be *hard* or ſoft with regard to the *Artery*, according as it is *tenſe*, *renitent*, and *hard* or *flaccid*, *ſoft* or *lax*; for the Diſpoſition of the Arteries contributes greatly to the Change of the Pulſe; wherefore it ſometimes happens that the Pulſe in both Arms is not alike, which is very common in an *Hemiplexy*. Add to theſe, a *convulſive Pulſe*, which does not proceed from the Blood, but from the State of the *Artery*, and is known by a tremulous ſubſultory Motion, and the Artery ſeems to be drawn upwards; this, in acute Fevers, is a Sign of Death, and is properly ſaid to be the Pulſe of dying Perſons, which is likewiſe generally *unequal* and *intermitting*.

A *great* Pulſe ſhews a more copious Afflux of Blood to the Heart, and from thence into the Arteries. A *little* Pulſe the contrary.

If the Weight of a Perſon be 160 Pounds, then 80 of that will conſiſt of Fluids. If he be healthy, the Pulſe will beat 70 Times in a Minute, or about 4200 in an Hour; whence the Blood is ſaid to circulate three Times in an Hour, and 72 Times in 24 Hours.

The *Pulſes* of Perſons differ according to the Largeneſs of the Heart and Veſſels, the *Quantity* and *Temperies* of the Blood, the elaſtic Force of the Canals, as alſo with regard to the *Sex*, *Age*,

Seaſons, *Air*, *Motion*, *Food*, *Sleep*, *Watching*, and *Paſſions of the Mind*. The *Pulſe* is larger and more quick in *Men* than *Women*; in the *bilious* and *ſanguineo-bilious*, than the *phlegmatic* and *melancholic*. Thoſe who are *lean*, with tenſe Fibres and large Veſſels, have a greater and ſtronger Pulſe than thoſe that are *obeſe*, with lax Fibres and ſmall Veſſels; whence they are more healthy, robuſt, and apt for Labour. In *Children* the Pulſe is quick and ſoft. In Adults greater and more violent. In the old it is commonly great, hard, and ſlow. *Labour*, *Motion*, and *Exerciſe* of the Body increaſe the Circulation of the Blood, the Excretions, and particularly Perſpiration; *Reſt* renders the Circulation ſlow and weak; *intenſe Speaking* increaſes the Circulation, and conſequently renders the Pulſe large and quick. In *Watching* the Pulſe is more evident, in *Sleep* more ſlow and languid. After *drinking* hot Things, ſuch as *Coffee*, *Tea*, or hot *Bath Waters*, as well as after *Meals*, the Pulſe vibrates more quick. But nothing produces a greater Change in the Pulſe than *Affections of the Mind*; in *Terror* it is unequal, ſmall, and contracted; in *Joy* frequent and great; in *Anger* quick and hard; in *Sadneſs* ſlow, ſmall, deep and weak, and in *intenſe Study* languid and weak.

With regard to the Air, when after the Predominancy of a *Weſt* or *South* Wind, it becomes *North* or *Eaſt*, the *Pulſe* is ſtronger and larger; and when the Quickſilver riſes in the Barometer. But when the *Atmoſphere* is *denſe*, *humid*, *rainy*, with a long *South Wind*; as alſo, when the *Life* is *ſedentary*, the *Sleep long*, and the *Seaſon autumnal*, the Pulſe is languid and ſmall, and the Perſpiration decreaſed. In *May* it is great, and ſometimes violent; in the Middle of the *Summer* quick, but weak; in the *Autumn* ſlow, ſoft, and weak; in the *Winter* hard and great.

A *draſtic Purge* and an *Emetic* render the Pulſe hard, quick, and weak, with Loſs of Strength; *Chalybeates* and the *Bark* render it great and robuſt, and the Complexion lively. *Volatiles* amplify and increaſe the Pulſe. *Acid* and *nitrous Remedies* refrigerate the Body, and appeaſe the Pulſe. *Opiates*, and the like, render it ſmall and weak, and decreaſe the Elaſticity of the Solids, whereas Things abounding with a *friendly Sulphur*, increaſe the Pulſe and the Strength; but *Poiſons* render it ſmall, contracted, and hard. When the Quantity of the Blood is too great, bleeding raiſes the Pulſe; which is alſo rendered violent by Baths, eſpecially if they are too hot, whence a Palpitation of the Heart, and a Pain in the Head. Likewiſe *Pediluvia* uſed at Bed-time, increaſes the Motion of the Blood and Arteries.

An *intermitting Pulſe* is, for the moſt Part, full of Danger, and often fatal, though ſometimes it happens otherwiſe, eſpecially

cially in *hyſteric Caſes*, and the *Colic*; ſometimes it proceeds from *Worms* or a *Polypus* in the Heart. Sometimes it attends *ſcorbutical Caſes*, without any great Inconvenience, and young Women whoſe *Menſes* are irregular.

Though in all *Fevers* there is a *frequent Pulſe*, yet it is not always a Sign of a Fever; for in *Children* and *bilious Conſtitutions* it is moſtly ſo, as alſo after *Bathing* and *Sudorifics*, and in *Paſſions of the Mind*; likewiſe after an *Epilepſy* and *Drunkenneſs*, the Pulſe is always more frequent, even without a Fever. Therefore Enquiry ſhould ever be made, whether the Frequency of the Pulſe ariſes from any external Cauſe, and whether there are any other eſſential Signs of a Fever, as *Horror*, and a *Refrigeration of the Extremities*. But, which is ſeldom taken notice of, the Pulſe is not *quick* in all Fevers, but more *renitent* and *hard* than the natural; and there are few Fevers in which the Pulſe is not harder than common, malignant ſweating Fevers excepted, ſuch as the Sweating Sickneſs, wherein it is *undulous*, with the greateſt Loſs of Strength. Fevers in general are attended with an *univerſal Spaſm* of the nervous and vaſcular Syſtem, including the Tunics of the *arterial Veſſels*, which conſiſt of nervous and muſcular Fibres. This *ſpaſtic Stricture* of the Fibres, contracting the capillary Veſſels, renders the Pulſe more quick, and heats the Blood by Attrition, whence proceeds a Heat of the Body.

In the *Beginning* of a *continual Fever*, or *Fit* of an *Intermittent*, the Pulſe is generally tenſe, ſmall, and frequent, which increaſes in Proportion as it proceeds to the *State*, when it is ſtrong and violent; but in the *Decline* the Tenſion and Quickneſs remit, and *Perſpiration* and *Sweat* begin to ſucceed. If, on the *critical Days*, that is, on the 7th, 9th, and 11th, the Pulſe is ſmall and quick, with Horror and Coldneſs of the Extremities, or quick and violent, with a thick, watery, and thin Urine, it ſhews the *Spaſms* of the Extremities are increaſed, and the Blood forced with Impetuoſity to the Head, whence a fatal *Phrenſy*. The *worſt Pulſe* is little, frequent, and weak, as it ſhews the greateſt Loſs of Strength, and that the internal Inflammation is tending to a Mortification, and if it is unequal and intermitting withal, it ſhews commonly that Death is at hand.

In the Beginning of a *Quartan* the Pulſe is ſmall, hard, frequent and unequal: In the State of a *tertian* and *burning Fever*, violent. In a *continual Fever* it is great and quick, and indicates bleeding. Before the Eruption of the *Small-Pox* and its *ſecondary Fever*, and in the *Meaſles*, it is quick, which ſeems to mend till the Time of Suppuration. In *malignant*

and *ſpotted Fevers* it is ſmall, weak, and contracted, with great Loſs of Strength; but becoming ſoft and undulous, with a copious Sweat, and ſeemingly good Urine, without a Remiſſion of the Symptoms, portends Death. In *inflammatory Fevers* with Pain, it is hard, and frequent, and ſometimes great. In *catarrhal* and *ſlow Fevers* the Pulſe increaſes in the Evening, and becomes more quick.

In *Madneſs*, *Phrenſy*, and *Melancholy*, it varies greatly, and is quick, ſlow, languid, robuſt, or unequal; but the Pulſe in the Head generally beats ſtrongly, with a diſtenſive and lancinating Pain. In an *Epilepſy*, *Apoplexy*, and *Hemiplexy*, it is hard, and frequent, and ſometimes large; but, if in the *Palſy*, *Lethargy*, *Coma*, and Diſpoſition to the *Syncope*, it is ſoft, rare, and languid, and at laſt becomes ſo ſlender as to be hardly perceived, with a cold Sweat, it is fatal. When the Pulſe is quick, languid, and unequal, as alſo intermittent, it ſhews a Palpitation of the Heart, and a *convulſive Aſthma*.

Before an *Hæmorrhage* the Pulſe is quick, ſmall, and ſomewhat hard, but when that breaks out, the Quickneſs and Largeneſs are increaſed. *Spaſmodic*, *hypochondriac*, and *hyſteric Affections*, *Colic*, and *Gravel Pains*, Pains in the Head and external Parts have a quick hard Pulſe, which, when it begins to grow ſoft and large, ſhews the Spaſms are a little appeaſed, and the Motion of the Blood become natural. In a *Dyſentery* the Pulſe is generally frequent and ſlow; if, with a Fever, it is large. In the *Lues Venerea*, *Scurvy*, *Cachexy*, and *Dropſy*, the Pulſe is languid and weak.

That excellent Phyſician, *Celſus*, calls the Pulſe *res fallaciſſima*; and from all that has been ſaid above it may be obſerved, that the ſureſt Concluſions are, for the moſt Part, to be drawn from the Pulſe, not conſidered abſolutely, but relatively; that is, from a morbid Pulſe compared with itſelf in a ſound State, or with itſelf at different Times in the ſame Diſeaſe; the Phyſician ought ever to make Allowance for Diverſity of Circumſtances; and not loſe Sight altogether of other Signs about the Patient, beſides the Pulſe.

I ought not to quit this Subject, without giving ſome Account of a very conſiderable Improvement and Enlargement of the Doctrine of Pulſes made not many Years ſince by *Francis Solano*, an eminent Phyſician of *Antiquera* in *Spain*, publiſhed in a Work of his, entitled, *Lapis Lydius Apollinis*. His Diſcoveries are chiefly theſe:

1. The double ſtriking, or rebounding Pulſe, often preſages critical Hæmorrhages by the Noſe in acute Diſeaſes, and that ſuch Diſcharges are the ſooner to be expected, the oftener the

double

double Stroke recurs, and that the Effuſion of Blood will be the greater, the more the Vigour of the ſecond Beat of the double Pulſe exceeds that of the firſt.

2. That the intermitting Pulſe, in like Manner, foreſhews a critical Diarrhœa, which will be the more copious the greater and more frequent the Intermiſſion is.

3. That the Pulſe, which he calls *Pulſus inciduus*, and explains to be an unequally riſing Pulſe, portends critical Sweats. In this Kind of Pulſe, there are ſometimes two, ſometimes three, and ſometimes four Strokes, joined together. Its Peculiarity is, that every ſucceeding Stroke riſes above that immediately preceding, both in Strength and Fulneſs: So that, if there be four ſuch joined together, the ſecond riſes above the firſt, the third above the ſecond, and the fourth above the third. The critical Sweats always come on the more plentifully, the greater Number of ſuch Strokes is joined together, and the more each following Stroke exceeds that immediately preceding in Strength and Fulneſs. Dr. *Solano* adds, that he always finds this Species of Pulſe to be ſoft, except in one Inſtance, in which it being hard, he taking other Symptoms about the Patient into Conſideration, prognoſticated a critical Jaundice, which came on as he had foretold.

Repeated Obſervation and Experience here in *England*, as well as in other Countries, have abundantly confirmed the Truth of theſe Diſcoveries concerning Prognoſtics from the Pulſe, and they are accordingly to be regarded as a moſt noble Addition to the general Doctrine of Signs in acute Diſeaſes.

Dr. *Stedman* makes the primary or moſt ſimple Diviſion of Pulſes to conſiſt of ſeven Kinds, *viz.* the *Magnus* and *Parvus*; *Fortis* and *Debilis*; *Frequens* and *Rarus*; and the *Plenus* or *Plethoricus*.

All theſe Pulſes, or the moſt Part of them, are ſometimes to be met with in the different Stages of the ſame Diſeaſe; but there are other Diſeaſes to which particular Pulſes are more peculiar. The *Magnus* frequently attends a *Stupor*, *Coma*, *Vertigo*, *Lethargy*, and other Diſorders of the Head, where there is little or no Fever. It is likewiſe not uncommon in *Hypochondriaciſm* and *Melancholy*, and often preſages a *Mania*. In this Reſpect the hypochondriacal Diſorders, in Men, generally differ from the hyſterical; as the latter are commonly attended with the *Parvus*: And, in general, the *Magnus* is rarely to be met with in Women; their Manner of Life and Habit of Body rendering the Sex more liable to the oppoſite Pulſe.

The *Parvus* is to be found in moſt Part of Fevers, either through the whole Diſeaſe, or in ſome of the Stages. Towards the End of inflammatory Fevers, this Pulſe is an unfavourable Sign. It is a pathognomic Sign in hectic Fevers. The low, malignant, bilious, and peſtilential Fevers, are commonly attended with this Pulſe throughout. It is almoſt a conſtant Concomitant of the *Phthiſis pulmonalis*. It is likewiſe common with Women, who have weak Nerves, and who are ſubject to ſudden Tremors, Palpitations, and to the well known Tribe of hyſterical Symptoms. In general, this Pulſe is more frequently met with than any other ariſing from morbid Cauſes.

The *Fortis* commonly introduceth inflammatory Fevers, eſpecially thoſe proceeding from Inflammations in the *Thorax*. This Pulſe, more than any other, indicates Bleeding; being a certain Indication of an increaſed Velocity in the Circulation, and frequently of a coheſive State of the Blood. But though, in inflammatory Fevers, attended with this Symptom, we bleed with Safety and Advantage; yet there are Fevers, in ſome Periods of which we meet with this Pulſe, and then ought to be cautious of Bleeding. This is the Caſe in Fevers of the remitting and intermitting Kind, where the *Pulſus fortis* precedes critical Sweats.

The *Debilis* always indicates a diminiſhed Velocity in the Circulation, and is, of all Kinds, the moſt dangerous; and the more ſo, if, with the diminiſhed Extenſion of the Artery, the Pulſe fall conſiderably below its ſtandard Number: For the Blood, not being ſufficiently agitated, ſoon loſeth its natural Texture. This Pulſe is frequently unequal, and interrupted.

Suppoſing then the Artery, when beating ſo ſlow, to have loſt, in the Diaſtole, one-tenth of its natural Diameter; and that, in the Syſtole, there remained ſeven-tenths; then was the Velocity of the Blood in the Diſeaſe to that when in Health, as twenty-three to fifty-one. Had there been no Difference in the Dilatation of the Artery, the Proportion, depending only on the Number of Pulſations, would have been as eight to eleven. But though we ſuppoſe the Artery to have loſt only ſo much of its Extenſion as, with the diminiſhed Number of Pulſations, to have made the Circulation in the Diſeaſe, to that in Health, as thirty to fifty-one; there is Reaſon to believe that even this would have been inſufficient to preſerve the proper Texture of the Blood for any conſiderable Time.

It

It may be obſerved that, though the Number of Pulſations in the *Parvus* may ſometimes balance the Loſs of Dilatation in the Artery, ſo as to preſerve the ſame Degree of Velocity in the Circulation; yet this Pulſe ſeems always to indicate, either the Weakneſs, or the Labour and difficult Action of the moving Power.

The *Plenus* is frequently met with in Women, when the periodical Return of the *Menſtrua* approacheth; particularly in thoſe who menſtruate with Difficulty. This Pulſe is likewiſe to be found in People of a thin Habit, and pale Complexion, ſubject to Hæmorrhages, whether from the Noſe, Lungs, or hæmorrhoidal Veſſels.

The *Plenus*, not being diſtinguiſhed by any Increaſe or Diminution of Pulſations, may be attended either with a quick, or ſlow Circulation.

Having thus propoſed the great or primary Diviſion, it will be eaſy to refer the reſt of the Pulſes to it, ſo as to diſtinguiſh what hath been called the compounded Pulſes. Thus, the *Mollis* and *Durus*, *Celer* and *Tardus*, *Acutus* and *Obtuſus*, *Dicrotos*, *Intermittens* or *Intercurrens*, may fall in with any of the Pulſes deſcribed above.

An Artery being but a very little more or leſs ſuperficial gives the Idea of a ſtrong, or of a weak Pulſe: Hence it is, that, in the ſame Perſon, we often feel the Pulſe in one Arm different from that in the other; and *Boerhaave* juſtly obſerves, that the Pulſe is frequently deceitful in fat People *.

When the Pulſe is not diſtinct, the moſt certain Method of judging of it is, to preſs the Fingers ſo much that the Circulation in the Artery may ſeem to be ſtopped; and, raiſing the Fingers gradually, let the Touch at laſt become quite ſuperficial. By this Method we may judge with more Certainty of the Action of the Artery, than by an uniform Preſſure of the Fingers: And as, in feeling the Pulſe, when our Fingers are cold, we are apt to believe the Pulſe to be weaker than it really is, it is of ſome Conſequence to preſerve the natural Heat of the Hand.

It hath been believed, that there is an exact Proportion between the Quickneſs of the Circulation and animal Heat; or that the Degree of Heat increaſeth in Proportion to the Attrition, and *Momentum* of the Blood; and the Pulſe, being the only Indication of Changes in the Circulation, hath likewiſe been believed to indicate greater or leſs Degrees of Animal Heat †.

* Boerhaave Inſtitut. § 960. † Boerhaave Inſtitut. § 968.

The Pulſes hitherto deſcribed are meant as indicating a a morbid State of the Body, and are ſuppoſed to refer to every Perſon's natural Pulſe; for what is a natural Pulſe with one Perſon, may indicate a morbid State of the Body with another. One of a gigantic Size, and of an athletic Habit, hath not naturally the ſame Kind of Pulſe with a Dwarf; nor can either of theſe be ſuppoſed to have a Pulſe equal to that of the other, without a Diſeaſe; and we often meet with People, ſeemingly of the ſame Habit and Conſtitution, who have nevertheleſs Pulſes of different Kinds; from which it appears of what Advantage it is to be acquanted with the Conſtitutions of People in Health, to be able to judge with greater Certainty of the Nature of Diſeaſes.

But, when one is ſaid to have naturally a great or little, a ſtrong or weak, a quick or ſlow Pulſe, theſe are ſuppoſed to refer to an univerſal mean Pulſe; an Idea of which every Phyſician muſt form to himſelf, from a frequent Examination of a Variety of Pulſes. Thus, when *Boerhaave* ſays that the Pulſe which is ſtrong, great and ſlow, is of all Kinds, the beſt, we underſtand this as referred to an univerſal mean Pulſe, or the Expreſſion can have no Meaning: For where any Perſon's Pulſe is ſaid to be great, ſtrong and ſlow, with reſpect to the mean or natural State of that Perſon's Pulſe, then are we to underſtand theſe Characters of the Pulſe as indicating a morbid State of the Body.

Of the Conſent *of the* NERVOUS PARTS *in general.*

THE *Harmony* and *Sympathy* of the *nervous Parts*, is of very great Uſe in Phyſic; for without an accurate Knowledge of theſe, many Symptoms of Diſeaſes can ſcarcely be explained, though it has not hitherto been ſufficiently attended to.

It is to be obſerved, that the *nervoſo-membranaceous* Parts are firſt the Membranes of the Brain and ſpinal Marrow, then the nervous Membranes, which inveſt the Organs of the Senſes; the Eyes, Ears, Noſtrils, Mouth, and *Fauces*; add to theſe, thoſe which cover the Bones, Head, Teeth, Joints, and Muſcles: Likewiſe the *Oeſophagus*, Stomach, and the whole Volume of the Inteſtines, which is entirely nervous and membranaceous.

The ſame Conſent obtains alſo in the whole Syſtem of the *bilious* and *urinary Ducts*, the Bladder, Glands, and Skin, which laſt is a Web of tendinous and nervous Fibres. In all

all theſe Parts there is a wonderful Connection, Conſent, Sympathy, and Communication of *Motions* as well as *Hurts*, when they are affected by any violent Cauſe; all which is by the Intermediation of the Nerves.

When the *Nerves* are moleſted, there ariſes a *Senſe of Pain*, with a Stricture of the adjacent Parts, eſpecially of the Veſſels; whence the Motions of the Blood and Humours become irregular.

The *irregular Motions of the Mind* act directly on the nervous Parts, and produce great Diſturbance in the whole Oeconomy of the vital and animal Motions, ſuch as a violent Stricture and Contraction of the Parts, and again Reſolution and Relaxation; to remedy which, Emollients, Lenients, and Sedatives are neceſſary.

A grievous *Concuſſion of the Brain*, without hurting the Texture of the Parts, will cauſe an Abolition of the Senſes, a Falling, a *Nauſea*, Vomiting, and Convulſions. Sailing in a Ship, or turning round ſwiftly, will produce a *Vertigo*, *Nauſea*, enormous Vomiting, with great Anxiety, Paleneſs, Languor, Loſs of Appetite, *&c.*

Theſe Symptoms may be produced by an exceeding ſmall Portion of Matter. For the *Smoak of Tobacco* in Beginners will cauſe great Anxieties, with cold Sweats, Paleneſs, Vomiting, and *Nauſeas*. The *Effluvia* of Muſk, and the like, will produce in ſome a *Syncope* and Oppreſſions of the Breaſt, which is cured by applying fetid Things to the Noſe. Cauſtic poiſonous Matter, conveyed to the nervous *Fibrillæ* of the wounded Skin, by the *Bite* of a *Viper*, *Scorpion*, *mad Dog*, or by an Inſtrument moiſtened with the Juice of white Hellebore, Oil of Tobacco, or an arſenical Liniment, will throw the nervous Syſtem into Commotions and ſpaſtic Strictures. Hence a Fever, Syncope, cold Sweat, Paleneſs, *Nauſea*, Vomiting, Yellowneſs of the Skin, Convulſions, Alienation of the Mind, obſtinate Coſtiveneſs, Suppreſſion of Urine, high Anxiety, and Difficulty of Breathing. And here *Specifics* or *Antidotes* are neceſſary, if poſſible, to ſubdue the active Particles of the Poiſon.

Solid, *rigid Bodies* alſo produce in the Nerves grievous Symptoms: Thus a Needle, or Lancet, hurting a Tendon, produces a hard Tumor, an Inflammation with Shivering, a Fever, and Watching, and at length a Mortification and Death; the certain Remedies for which are *Emollients*. The cutting of Corns, when Perſons are old and ſcorbutic, is often attended with terrible Conſequences. A *Thorn under the Nail* will produce Pain, Tumor, Redneſs, a Pulſation of the

Part,

Part, and a Fever. The Cauſes of a Mortification in extreme old Age, and a ſcorbutic Body, conſiſt not only in the wounding the Nerves, but in the Conſtriction of the Nervous Membranes, whence a Stagnation of the Blood, and ſphacelous Corruption.

The *Sting of a Waſp*, in ſome membraneous Part, will ſometimes produce terrible Symptoms, as will Hurts in the inward Parts, by the ſwallowing of a Needle, and the like.

But the *Stomach* has the moſt intimate Sympathy with all the reſt of the Parts; for, let the Nerves be hurt where they will, the Stomach always ſuffers. Even a ſtrong Blow on the Pit of the Stomach has been fatal. Nothing makes this more evident than the taking *Arſenic* and *corroſive Preparations of Mercury* and *Antimony*; *Cicuta aquatica*, and *Fungi* of various Kinds, as alſo *draſtic Purges*, which alone cauſe the ſtrongeſt ſpaſtic Contractions of the whole nervous Syſtem. Hence a *Cardialgia*, reaching to vomit, Hiccup, Anxiety of the *Præcordia*, Difficulty of Breathing, Conſtriction of the Diaphragm, Dryneſs of the Tongue and *Fauces*, unquenchable Thirſt, Coſtiveneſs, Retention of Wind, Griping, Looſeneſs, a perpetual *Stimulus* to Urine, Coldneſs of the Extremities, cold Sweats, and Hippocratic Countenance, a trembling of the Limbs, an intermitting Pulſe, a *Delirium*, Fainting, Convulſions, an Epilepſy; which are the general Symptoms of Poiſon, and ariſe from the Eroſion of the Coats of the Stomach.

This is confirmed by the Symptoms of *hypochondriac* and *hyſteric* Perſons. For, if the Stomach is diſtended with Wind, and its Orifices contracted by a Spaſm, the Nerves are vellicated or drawn, and there is a Tenſion in various Parts. The Nerves of the Lungs being thus affected, produce the higheſt conſtrictive Anxieties, Tremblings and Palpitations of the Heart, a frequent, hard, and contracted Pulſe; if the Nerves of the *Neck*, there is a difficult Swallowing, and the Aliment regurgitates; if thoſe of the Head, there is a *Vertigo*, and a *Scotomia*, a Pain in the Head, a Senſe of Coldneſs, anxious Thoughts, an *Hemicrania*, Fear, Terror, and Deſpair. Likewiſe becauſe the *Plexus* of the meſenteric and intercoſtal Nerves may be drawn into Conſent, there are Pains of the Back, Gripes, a copious Flux of the Hæmorrhoids, Pain of the Joints, aqueous Urine, Coſtiveneſs, or a Diarrhœa, as well as Coldneſs of the Extremities; all which may be alleviated, if the Stomach and Inteſtines are cleared from Wind, and the Spaſms appeaſed by Clyſters, Baths, and Antiſpaſmodics, and the acid, viſcid, and bilious *Colluvies* carried off by gentle Laxatives, joined with bitter Balſamics.

The

The Conſent of the Stomach, with the nervous Parts, may be likewiſe proved from the Paroxyſms of intermitting Fevers, for they begin with Spaſms in the *Primæ Viæ*, which being propagated, occaſion all the Symptoms. It is not uncommon for Sadneſs and Melancholy to render a Perſon *hypochondriac*, the Seat of which is chiefly in the Stomach; likewiſe *Anger* will produce a *Cardialgia*, a Propenſity to vomit; a *ſtrong Deſire* of returning to one's own Country has been obſerved to hurt the Cauſes of Digeſtion, produce a *Cardialgia* with *Languor*, whence the whole Body was emaciated. In a *Vertigo*, proceeding from a Conſent of Parts, if a Perſon is faſting, it may be *mitigated* by eating, and *cured* by cleanſing the *Primæ Viæ*, and taking Stomachics. If the Stomach is well, the whole Body is light, and the Sleep ſweet; but, if it be loaded with incongruous Aliment at Night, the Sleep is little and diſturbed. Pains in the Head produce Wind and Loſs of Appetite; a Fit of an *Apoplexy* cauſes Vomiting, as well as Wounds in the Head. *Difficult Dentition* cauſes Fevers, Aſthmas, Epilepſies, and other Symptoms. If you irritate the *Oeſophagus* with a Feather, it cauſes Vomiting; and the *Heart-burn* will bring Water into the Mouth. Likewiſe Vomiting is a common Attendant on the Colic. The Diaphragm and Lungs thus affected, produce Hiccups and the Hooping Cough; and Pains from the Gravel cauſe Vomiting. The Stomach likewiſe correſponds with the Feet, whence the *Epilepſy* ſometimes begins in the great Toe, aſcends to the *Abdomen*, then to the Heart and Diaphragm, and laſt of all to the Head, with a Senſe of Cold. Standing upon a cold Pavement will produce the Gripes, and a Looſeneſs. A ſtriking in of *Exanthemata* will create Spaſms, Gripes, Anxieties, Coſtiveneſs, and Inflammations. From the *Worms* proceed an Epilepſy, *Delirium*, *Vertigo*, Sneezing, a temporary *Gutta Serena*, and a tranſitory Deafneſs, Convulſions, Fevers, Palpitations of the Heart, Coughs, Pains, and a Baſtard Pleuriſy, Loſs of Appetite, Inclination to vomit, Watering of the Mouth, and the like; for which give Pills of *Aſa Fœtida*, *Myrrh*, *Saffron*, and *Mercurius Dulcis*.

This Conſent is farther proved from the *Iliac Paſſion*, *convulſive Colic*, *Dyſentery*, and the Effects of Medicines, but in nothing more than in Applications to the Feet, for ſtimulating *Suppedalia* help the Memory, Debility of the Senſes, the *Palſy* which ſucceeds an *Apoplexy*, and ſtop Bleeding at the Noſe. *Cephalic* and *aromatic Spirits* applied with *Oil* of *Marjoram* and *Lavender*, greatly relieve the Head, and in ſleepy Diſtempers have promoted a large Flux of Phlegm from the *Noſe* and *Fauces*, with a ſalutary Effect.

Of

Of OBSTRUCTIONS.

OBSTRUCTIONS chiefly take Place in the Veſſels, and very ſeldom or never in the larger Receptacles.

This may ariſe from three Cauſes: 1. Either the Liquid which ſhould paſs, is grown more viſcid, while the Capacity of the Canal remains the ſame; or, 2. The Canal is grown narrower, whilſt the Liquid remains as it was; or, 3. The Straitneſs of the Canal, and the Viſcidity of the Liquid, are combined together.

The Particles of all Fluids cohere with a certain Degree of Force. Now, in order that the Fluids may paſs through the ſmalleſt Extremities of the Veſſels, it is requiſite that they paſs ſingle, and freed from their Coheſion with the reſt; the Powers, therefore, that carry the Humours through the Veſſels, muſt be able to overcome this Coheſion. Should then the Coheſion of the elementary Particles be ſo increaſed, as not to ſuffer them to be divided from each other, by the Action of the Heart and Veſſels, ſeveral of them will remain conglomerated, which ought to have paſſed ſingly through the Extremities of the Veſſels, and ſo form an *Obſtruction*.

All *Tumours* muſt ariſe, either from the Fluids diſtending the Veſſels beyond their natural Bulk, or from their being extravaſated, or from the Veſſels being concreted with their inſpiſſated Liquids. When the Arteries and Veins, which are charged with red Blood, are ſo diſtended with the Quantity they contain, as to compreſs the ſmaller Veſſels which lie near them, they may do much Miſchief. The Effects of this Kind of Tumour are eſpecially ſeen in the Damage it does to the Action of the Brain; for the *Cranium* being always entirely full, and no red Blood being any where to be found but in the *Pia Mater*, and the large red Arteries diſperſed through the medullary Subſtance of the Brain, and ſurrounding the *Medulla Oblongata*, the cortical Subſtance naturally containing none; it follows, that when theſe red Blood-Veſſels are diſtended, as the hard boney Part of the *Cranium* cannot give Way, the other Veſſels of the cortical Subſtance, and the *Medulla*, muſt be compreſſed; by which Means all the Functions of the Brain will be diſordered; only the *Cerebellum* will, in this Caſe, be leſs affected.

Tumours attended with Pain are called *Phlegmons*; if without Pain, and hard, *Schirruſes*; if without Pain, and ſoft, they are then properly called *Oedemata*; which are applicable to Tumours ariſing in the *Membrana celluloſa* only. The Matter of them is generally Water, as in the anaſarcous Dropſy; or

ſome more viſcid pituitous Liquid, as in the *Leucophlegmatia*. Now the *Membrana celluloſa*, which is the true Seat of theſe Tumours, ſurrounds all the Veſſels, and the Tumours are conſequently capable of leſſening the Areas of the Sections of the Veſſels, and frequently of producing very ſurpriſing Diſeaſes, entirely owing to this ſingle Cauſe.

Varixes happen more particularly to Women with Child, and that eſpecially in the Legs; becauſe, when the *Uterus* is diſtended, and preſſes upon the iliac Veins, it prevents the Veins of the Thighs and Legs from diſcharging the Blood they contain, ſo expeditiouſly as they ought.

A *Callus* in the membraneous Part increaſed in Bulk, is attended with Hardneſs and Inſenſibility, ariſing from the Veſſels being concreted together, and chiefly by an external Compreſſure. Its proximate Cauſe is the Compreſſure of the Veſſels, the Expreſſion of the Liquids they contain, and the Concretion of their Sides.

The proximate Cauſe of all Obſtructions is only one, which is always ſimple and the ſame; *i. e.* the greater Bulk of the Matter that is to be tranſmitted, above the Capacity of the Canal that is to tranſmit.

There are two Cauſes that diſtend the Arteries; the Force of the Heart propelling the Blood, and the Quantity of the Blood already contained in the Arteries: If the Force of the Heart be leſſened, the whole Circulation proceeds ſlowly; if the Quantity of the diſtending Liquid be diminiſhed, the Fault lies in the Inanition. But the Capacity of all the Veſſels depends upon two oppoſite Cauſes; the Force and Quantity of the Liquid which is moved in the Veſſel, and the contractile Power of its Sides, which reſiſts the diſtending Cauſes. As ſoon, therefore, as the diſtending Cauſes are leſſened, the contractile Powers will produce the ſame Effect; or, which is the ſame thing, the Veſſels will be rendered narrower. When the Particles of our Fluids loſe their ſpherical Figure, they muſt of Conſequence loſe the Poſſibility of an uniform Tranſition through the Veſſels: For ſince by the Motion of the Heart and Arteries, every Particle of the Blood has a different Motion and Situation every Moment, it was requiſite to make this Motion uniform, that they ſhould be of ſuch a Figure as might enable them to paſs through the Veſſels in any Situation; which is the Caſe of a ſpherical Figure only.

The Denſity of the Particles of the Blood is always proportional to the Power of the Heart and Arteries. The Shape of the elementary Particles of our Fluids, ſo far as we can diſcern, by the Help of Microſcopes, is ſpherical; and this is obvious,

obvious, if we conſider that the Blood is thrown, by the great Force of the Heart, into a conical Veſſel that is reciprocally dilated and contracted, and incurvated as ſoon as it comes from the Heart. It is plain, therefore, that no Particle of Blood can keep the ſame Direction for two Moments together; and conſequently, that the Particles muſt be continually ſtriking againſt each other: So that if any angular Point ſhould ſtick out in any elementary Particle, that Point muſt ſuſtain the Rotation of all the reſt; and, therefore, will ſoon either be beat off, or ſmoothed down. Add to this, that the Extremities of the Arteries, if cut tranſverſely, have a circular Section, and ſo may give their Figure to ſuch Particles as are of a flexible Nature.

The ſtronger a Perſon is, the greater is the Danger of Concretion, if his Blood be at reſt in the Veſſels: And therefore thoſe Faintings, which weakly Girls are ſo ſubject to fall into upon every ſlight Occaſion, are ſeldom ſo dangerous, as their Blood is in a too diſſolved State, and ſcarce ever, or, at leaſt, very ſlowly, concretes, though it remain unmoved. The Serum of Blood will not turn to Ice, till expoſed to the twenty-eighth Degree of *Fahrenheit*'s Thermometer; ſo that it requires a greater Degree of Cold than Water; probably becauſe it is impregnated with Salts.

If Blood be taken away on the firſt Day of the Small-pox, it looks well to the Eye; if on the third and fourth, it will be covered with an inflammatory Cruſt, becauſe the moſt liquid Parts being carried off by the Fever, and the thicker Parts more cloſely compacted, the Particles of Blood begin to cohere more firmly together: For whilſt there is a large Quantity of thin Liquid interpoſed between the thicker Parts, the Preſſure of the Veſſels will not change their Figures; but when this is carried off, the thicker Parts of the Blood becoming contiguous, will be forcibly compreſſed by the Action of the Veſſels, loſe their ſpherical Figure, touch each other in many Points, and run into Concretions: For when the Veſſels are very ſtrong, ſo as to compreſs their Fluids with great Force, the fineſt Part will be carried off, and the thicker Parts united by this Compreſſion.

All *Acids* do not *coagulate* the Blood: The *acidulous Wines*, *Juices of ripe acid Fruits*, *Vinegar*, *Butter-Milk*, *&c.* rather diſſolve it; but the foſſile Acids prepared from Sea-ſalt, Nitre, *&c.* coagulate it. Alum, and the various Sorts of Vitriol, produce the ſtrongeſt Coagulations.

Well rectified Spirit of Wine, applied to the Mouths of the bleeding Wounds of divided Veſſels, puts a Stop to the moſt violent

violent *Hæmorrhages* by coagulating the Blood. The Serum of the Blood itſelf will preſently become hard by pouring rectified Spirit of Wine upon it. How dangerous, therefore, muſt be the frequent Uſe of ſpirituous Liquors.

No Obſtructions can poſſibly be formed in Canals, through which, during the Courſe of Life, the Liquids are carried by a perpetual Motion, unleſs the Motion be from a broader Orifice to a narrower. That Obſtructions may ariſe in conical Veſſels, through which the Liquids are moved in a Direction leading from the Baſis to the Apex, is certain; for their Particles arrive at a narrower Section of the Cone every Moment; and that which eaſily paſſed at the Baſis may eaſily ſtick in the Extremities of this converging Canal, and then the Liquid behind will continually preſs the unpaſſable Maſs into a ſtill narrower Chanel, and ſo increaſe the Obſtruction: But in the Veins, where the Direction of the Motion tends from the Apex of a conical Canal, to its Baſis, an Obſtruction ſeems not poſſible, unleſs by the external Compreſſion of the Veſſel; for whatever had paſſed the narrow Orifice of its Vertex, will eaſily paſs the other Sections of the Canal, which are continually growing larger: And though the Particles of the Fluid be ſuppoſed to unite into ſtill larger Particles, yet, as theſe are not ſupported by the diverging Sides of the Veins, they will eaſily be carried on by the Impetus of the ſubſequent Liquid.

In a Peripneumony, it is a bad Symptom if the Blood drawn from a Vein be too dilute, and ſcarce diſpoſed to coagulate; becauſe it ſhews, that the thinner Parts only paſs through the Lungs, while the thick are accumulated.

It often happens, that acute inflammatory Diſeaſes of the Head ſhall leave behind them an incurable Deafneſs or Blindneſs, during Life; the Reaſon of which is moſt probably this, that when the greater Veſſels were obſtructed by the Inflammation, the leſſer, derived from them, being compreſſed and collapſed, were, by this Means, grown together.

When in an Apoplexy the Brain ceaſes to perform its Functions, it is ſeldom cured; ſome Defect or other of the Functions always remaining, which, for the moſt Part, proves incurable.

When the Stomach is diſtended with a large Quantity of Meat and Drink, and preſſes the deſcending Trunk of the *Aorta*, the turgid Face, the red Eyes, the increaſed Pulſations, and the quicker Reſpiration, all ſhew the Quantity of Blood to be increaſed in the upper Parts, and that it flows with greater Celerity through the Veſſels: Hence it is that

we

we meet with ſo many Inſtances of Perſons who have died of an Apoplexy immediately after a full Meal.

If a confirmed Schirrus, or a malignant Cancer, that will not admit of Extirpation, be the Cauſe of an Obſtruction, he muſt be a bold Man that in ſuch a Caſe will preſume to promiſe a Cure.

The Paſſions of the Mind are capable of very ſuddenly and very powerfully increaſing the Contractility of the Solids. I have ſeen a Woman in perfect Health, who, upon a ſudden Fright, had a Tumour immediately riſe in her Breaſt, which, though very properly treated, hardened into an irreſoluble Schirrus.

Warm Water will ſoften the harder Parts of the Body; but when turned to Vapour, will more effectually accompliſh this Office. The Joint of the Elbow, grown immoveable from an Induration of the Ligaments, was rendered entirely flexible, in two Months, by being expoſed two Hours every Day to the Vapour of warm Water. Where this can be conveniently directed to the Part, it is moſt undoubtedly to be preferred to all other Methods. Warm Water dropping from a higher Situation on the Part affected, has done Wonders in local Diſeaſes; chronical and ſtubborn Tumours of the Knee have been often cured thereby.

Bleeding often is uſeful in Obſtructions ariſing from the increaſed Contraction of the Fibres; for thus emptying the large Veſſels, the leſſer ones which form their Sides are leſs compreſſed, and the Force by which the Liquid is impelled againſt the obſtructed Place is diminiſhed; and in Caſe the Quantity of Blood taken away be large, ſo as to endanger Swooning, the Preſſure of the vital Liquid from the Baſis of the Veſſel to the Vertex, being, by this Means, removed, the ſmaller Veſſels will be enabled to contract and repell the Liquid which obſtructs them in the larger Veſſels.

A Callus, if pared off from the Skin, will grow again, although no vital Liquid flow through it: And this ſeems to ariſe from the concreted Extremities of the Veſſels being gradually protruded by the vital Liquid; as alſo becauſe the open Extremities of the Veſſels, that are next the Callus, are compreſſed by it.

Animal Motion increaſes the Velocity of the Circulation, and renders the ſolid Parts more firm.

Frictions are of great Uſe in reſolving Obſtructions. I have ſeen an indurated parotid Gland, after many good Applications had failed, reſolved, by being rubbed with Woollen Cloths for an Hour together, twice a Day, after having been

been expoſed to the Vapour of warm Water and Vinegar. The ſame has been effected in the Glands of the Neck, which were ſtrumous.

Muſcular Motion alſo is of ſingular Service in this Caſe; as the venal Blood is accelerated thereby, it occaſions the Heart to contract oftner, and more frequently diſtends and contracts the Veſſels alternately in a given Time.

Sea Salt, Sal Gemm, Sal Ammoniac, being much alike in many of their Qualities, have alſo a ſimilar Power of attenuating. The two former, when given inwardly, mix, indeed, with our Humours, but paſs off by Urine, in a great Meaſure unchanged; for which Reaſon, though they paſs through moſt of the Veſſels of the Body, yet they undergo no Alteration from their Action. Now, whatever is taken down, and cannot be changed by the Powers of the Body, will conſtantly excite a greater Motion by acting as a Stimulant. But Sal Ammoniac, which is lighter than the other two, and more like the native Salts of the Blood, is more capable of being changed by the Powers of the Body, and of a very penetrating Nature; and is therefore generally preferred before the reſt, and juſtly commended as one of the greateſt Deobſtruents, both in acute and chronical Diſeaſes.

The Action of theſe Salts ſeems to conſiſt in this, that when they are mixed with the Humours, diſſolved, and conveyed to the obſtructed Places, from a Kind of conſtant Attrition by the Action of the Veſſel againſt the obſtructing Maſs, they divide it by their Weight and Figure, and thereby render it paſſable through the Veſſels; at the ſame Time increaſing the Action of the Veſſels themſelves, by their ſtimulating Quality.

When the Veſſels under the unbroken Skin are ruptured by a Contuſion, and the Blood concreted into a Maſs, which is ſtill intire, theſe Salts diſſolved in Water, and applied to the Part, will moſt happily diſſolve it.

Thoſe who indulge themſelves too much in eating large Quantities of Sea Salt, will have their Blood ſo diſſolved, that it can ſcarce be retained in the Veſſels; hence often will ariſe very violent Hæmorrhages, partly from the Blood's too great Diſſolution, and partly from the too great Acrimony of the Humours eroding the Veſſels.

The Modern Nitre ſeems quite different from that of the Ancients; for theirs appears to have been of an alkaline Nature, or perhaps it was Sal Ammoniac to which they gave this Name. Modern Nitre is of a Nature ſtrangely ambiguous, between vegetable, animal, and foſſile. If free from Sea Salt it

remains dry in the Air, diſſolves entirely in Water, is the lighteſt of Salts, a very great Attenuant, and highly uſeful in Obſtructions from an inflammatory Denſity of the Blood.

Borax is a very wonderful Salt, whoſe Nature is not well known, and its Hiſtory confuſed, even in the beſt Writers. It is commended much as a Deobſtruent, and uſed in the moſt obſtinate Diſeaſes, as it acts partly by its wonderful Stimulus, and partly by its attenuant ſaline Power.

All Soaps contain an Oil ſo intimately mixed with a Salt, as to be capable of being diſſolved in Water without Separation: The more ſubtile the Oil and the Salt are, of ſo much the more excellent Uſe is the Soap which is made from them.

Pills of Soot, gilt over to prevent their offending the Taſte, have often done great Service in Diſeaſes ariſing from Viſcidity, on Account of their ſoapy attenuant Nature.

That Bile has a diſſolving Power, is evident from thoſe Diſeaſes, where, by being hindered from taking its uſual Courſe, it regurgitates backwards into the Blood, in which Caſe it turns it all to a Water; and for this Reaſon it is, that obſtinate Jaundices are almoſt conſtantly followed by a Dropſy. If Bile, inſpiſſated as an Extract, be rubbed on the ſwollen Bellies of Children, it will diſſolve the Concretions formed in their Inteſtines, and carry them off by Stool.

It is ſufficient, if a Phyſician knows the Effect of Quickſilver, when applied to the Body, though he be not acquainted with its particular *Modus operandi:* The Virtue of other Remedies is no leſs obſcure; who has ever explained the Manner by which Scammony carries off the Blood by Stool, after it is converted into a putrid Water?

Who ever has thoroughly underſtood the wonderful Properties of Antimony in its ſeveral Preparations?

Bleeding will ſucceed better in a Pleuriſy, if the Side affected be gently rubbed at the ſame Time the Blood is iſſuing from the Vein; or if the Patient move the affected Part, by frequently drawing in his Breath as hard as he can, or by Coughing.

Obſtructions in inflammatory Diſeaſes are more eaſily removed in Men of lax Habits, than in ſtrong Men who have been accuſtomed to hard Labour.

Of

Of an EXCESS *of the circulatory Motion of the* BLOOD.

THE Blood of Perſons in Health is much diſpoſed to Concretions; and this may be increaſed by the Increaſe of Heat: Blood thus concreted is not eaſily ſolvable.

Whatever cauſes the venal Blood to move more ſwiftly towards the Heart, increaſes the Motion of the Heart: Hence it appears how a very high Fever may be raiſed by too violent muſcular Motion, or by violent Frictions.

An increaſed Motion of the Blood ariſes from the more frequent and violent Contractions of the Heart. The Dilatation of the Arteries muſt be increaſed in a Proportion compounded of the increaſed Strength and Frequency of thoſe Contractions.

The Arteries, when they are diſtended, are in a violent State; and hence their Sides endeavour to approach nearer to their Axis, by their Elaſticity and circular Action, and ſo repreſs the diſtending Blood: For, unleſs the Arteries, by being contracted through their own Spring, were to expel the Blood which diſtends them, the Heart would not be able, the next Syſtole, to throw the Blood contained in its Cavities into the Arteries already diſtended; conſequently the Blood would by Degrees be accumulated within its Cavities, and the Circulation ſtopped. The ſtronger, therefore, the Motion of the Heart is, which diſtends the Arteries, the greater will be the Power of that Force by which the Arteries endeavour to contract their Cavities; and the oftener the Heart is contracted in the ſame Space of Time, the more frequently will the contracted Arteries re-act upon the Blood that diſtends them.

Heat ariſes from the Attrition of the Parts of the Blood with each other, and with the Sides of the Veſſels. As ſoon as the Blood is at reſt, all Heat ceaſes; which revives again upon its Motion. This made HIPPOCRATES aſſert, that *the Blood is not hot by Nature, but grows hot.*

The Urine, which is the true Lixivium of the Blood, grows more acrid and fœtid, as the Circulation becomes more violent: The Motion of the Blood being increaſed, its Salts become more acrid and volatile, and its Oils thinner and leſs mild: Theſe again will form a freſh Stimulus to increaſe the Circulation, from the Increaſe whereof they deduced their Origin. And thus the Effect of a Diſeaſe ſhall increaſe the Diſeaſe itſelf.

Health ſeems, in a great Meaſure, to conſiſt in every Veſſel's containing its own due Portion of Liquor.

The Quickneſs of the Pulſe ſhews that the Heart is contracted more frequently than it ſhould be, in the ſame Space of Time; its Hardneſs indicates the Fulneſs of the Arteries; that the Blood is very compact and denſe; and that with Difficulty it gains a Paſſage through the minute Veſſels, from its inflammatory Viſcidity.

All the Blood thrown out of the Right Ventricle of the Heart ought to paſs through the Lungs before it can return into the Left: But as the Right Ventricle would not ſuffice to propel all the Blood through the narrow Paſſages of the pulmonary Artery, by its own muſcular Force alone, there is farther required the concurring Action of Reſpiration to dilate the Lungs, and thereby open a free Paſſage to the Blood that is thrown from the Heart. In Proportion, therefore, as the right Ventricle of the Heart, in a given Time, contracts oftner and ſtronger, ſo much the more frequent and ſtrong the Inſpiration is required to be. Thus we ſee, that whenever the Motion of the Blood is increaſed by Running, or any other violent Exerciſe, the Reſpiration increaſes in Proportion, and is performed with greater Difficulty. And thus the Reſpiration is greater, merely from an Increaſe of the Velocity of the Blood which paſſes through the Lungs. But when, beſides this, through the greater Motion, the Blood begins to aſſume an inflammatory Thickneſs, the Reſpiration will then be much quicker, and more difficult; for this ill Quality in the Blood, of its not being able to circulate, firſt ſhews itſelf in the Lungs; and for this Reaſon, in acute Diſeaſes of the inflammatory Kind, a ſhort and difficult Reſpiration is reckoned a bad Symptom.

Of a Defect of Circulation, and of a PLETHORA.

A Diminiſhed Circulation is always attended with a Fullneſs of the Veins: For if the Viſcera, whoſe Office it is to change the Aliment into Chyle, be firm and ſtrong, this large Quantity of Chyle is converted into good Blood; and as the Veins are of a lax Nature, they will eaſily yield to the diſtending Liquid, and admit this ſuperfluous Quantity, unleſs emptied by Motion and Exerciſe; ſo that by *Plethora* is not to be underſtood every Increaſe of the Humours, but only an over Increaſe of the Quantity of Blood.

A delicate Way of Living, Intemperance, Lazineſs, and ſupping overmuch, may give Riſe to a Plethora; which may likewiſe

wiſe be the Effect of the Suppreſſion of habitual Diſcharges, whether natural or artificial, and even of ſome Diſeaſes which Nature has made the Means of reſtoring the neceſſary Equilibrium between the Fluids and their Veſſels.

When hard Drinkers pour down ſuch vaſt Quantities of Liquor, they would be ſuffocated, if their Veins were not capable of giving Way, and receiving the ſuperfluous Part of it; and therefore it is that thoſe People have their Veins ſo much inflated. If then much Chyle and Blood be formed in the ſeveral Viſcera ſet apart for this Purpoſe, and the Laxity of the Veins, at the ſame Time, be proportionally greater, the Quantity of Blood muſt neceſſarily be accumulated.

Men uſed to frequent Bleeding ſuffer the ſame Inconveniences, at their accuſtomed Times of letting Blood, as Women do from the Retention of the Catamænia, till, at length, they become quite as lax as Women.

Hard-working People are ſeldom known to be plethoric, though they eat voraciouſly; becauſe Labour carries off that which would otherwiſe be detained in a State of inactive Idleneſs, and gives ſuch a Firmneſs to the Solids, as not eaſily to yield to the filling Liquors.

Rarefaction is alone capable of producing a Plethora; for if the Blood be rendered twice as rare as it was, it is the ſame Thing with reſpect to the Veſſels, as if there were twice the Quantity of Blood contained in them.

Without diſcuſſing the Point, whether a Plethora ſhould be admitted among the Number of Diſeaſes, or conſidered as a Cauſe only, it muſt, however, be allowed capable of exciting the greateſt Diſorders, ſuch as Vertigos, Convulſions, Apoplexies, obſtinate Ophthalmias, Fevers, internal Hemorrhages, ſuffocating Catarrhs; and, in a word, Numbers of other Maladies, which, though apparently of a very different Character, yield not to the ſame Treatment and Remedies which a Plethora requires.

When an evident Redundancy of Blood has not, as yet, produced any dangerous Stagnations, the proper Means to oppoſe its Progreſs, are an abſtemious Diet and bodily Exerciſe; not neglecting to reſtore, as far as poſſible, any habitual Evacuations which may have been ſuppreſſed. It has been generally held, that in other Caſes, Bleeding ſhould indiſpenſably be had recourſe to; to perſiſt too far in it, may, however, be very dangerous, as it is but too notorious, that a frequent Uſe of it is apt to weaken the elaſtic Force of the Veſſels, as obſerved above. But Exerciſe ſhould never be preſcribed till the Veſſels have been firſt emptied by Bleeding, leſt, by being too much diſ-

tended, they ſhould be liable to break. Other acceſſory Remedies may be ſerviceable according to particular Circumſtances, eſpecially Purgatives, when the Body has been duly prepared by Diet and Bleeding.

Of PAIN.

THAT the Teeth, Ears, Stomach, Inteſtines, Kidneys, *&c.* are liable to moſt acute Pains; that the Liver, Lungs, Spleen, and other Viſcera, are the Seat of leſs violent Pains; and that thoſe which affect the fleſhy and membraneous Parts are a known Symptom of the Rheumatiſm, Gout, Pox, Scurvy, Cachexy, *&c.* falls under almoſt every one's Obſervation. Moreover, it is cuſtomary to diſtinguiſh Pains by the different Senſations which they excite, as that of Weight, Pulſation, Pungency, Gnawing, Heat, Itching, *&c.* The *heavy* or *weighty* Pain frequently attacks the Head and the Viſcera of the lower Belly, but moſtly the Kidneys: The Head is alſo the Seat of *pulſative* Pains, but they more particularly accompany the Formation of Pus; and the Shootings felt under this Circumſtance are a more manifeſt Indication of it than any other Symptom. *Pungent* Pains torment the membraneous Parts, and are ſharper the more the Membranes are ſtretched; of which the Pleuriſy, Sciatica, Cholic, Spina Ventoſa, *&c.* furniſh Examples. *Gnawing* Pains, as Ulcerations, with which the Lungs, Kidneys, Guts and Womb are the oftenеſt affected. The *burning* Pain is moſt remarkable in the Eryſipelas, whence it got the Name of *St. Antony's Fire.* The *itching* Pain belongs principally to Diſeaſes of the Skin. Beſides theſe there are *dull* Pains, which occupy chiefly the precordial Parts, otherwiſe called *Anxieties.* Nothing is more common than *numby* and *crampy* Pains, with thoſe nocturnal Inquietudes which are felt principally in the lower Extremities; and their diſagreeable *tickling* Senſation about the End of the Sternum, and in the Bottoms of the Feet; to ſay nothing of thoſe which ariſe from Preſſure, Contuſion, Diſtenſion, Wounds, Burns, or Cold; all which Varieties depend, as may be eaſily underſtood, both from the Structure of the Part, and the Nature of the irritating Cauſe.

Pain, whereſoever ſeated, is rarely eſſential, or independent of all other Conditions; being, for the moſt Part, a Symptom

Symptom of ſome acute or chronical Diſeaſe. In the former, if the Pains be continual, either in the Breaſt, or the lower Belly, they portend Suffocation, Inflammation, Suppuration, or Gangrene: It is otherwiſe with thoſe which occupy the Externals or Extremities of theſe Cavities; for they may be, in the Courſe of the Diſeaſe, the Forerunners of ſome critical Change.

Pains which are neither continual, nor fixed, depend upon a ſimple Affection of the Nerves, called a *Spaſm*; which acts its Part ſometimes in perfect Health, as well as in chronical Diſeaſes.

It is worthy of Obſervation, that the moſt frequent Pains which accompany habitual Diſorders, depend chiefly on thoſe four principal Diſeaſes, the *Rheumatiſm*, *Gout*, *Scurvy*, and *Pox*. Yet are not theſe the ſole Source of wandering and irregular Pains; for ſuch may be excited by the Paſſions of the Mind, convulſive Affections, obſtructed Perſpiration, *&c.* Beſides, in ſome chronical Diſeaſes, Pains are owing to vaſcular or glandular Obſtructions, Tumors, and other Diſconcertions of the Solids.

There are certain Pains on whoſe Nature it is extremely difficult to form a right Judgment: The Seat of ſome internal ones, and their Cauſes, are often hard to gueſs at: Nevertheleſs, there are no great Conſequences to be apprehended in Fevers, of Pains attacking the Head, Back, and extreme Parts, as they ſeldom fail to diſappear when the Fever is at an End; and they are often of a favourable Preſage, eſpecially if they coincide with the Time of Concoction: For Example, thoſe of the Temples, Neck, and Eyes, denote an approaching critical Hemorrhage. Wandering Pains through all the internal Parts, ſometimes precede Evacuations or ſalutary Eruptions. Thoſe of the Loins are well known to precede the menſtrual Flux, Hemorrhoids, and a copious Diſcharge of Urine. Violent and continual Pains of the Head, ſometimes terminate in a Lethargy and a Delirium.

Intermittent Pains are ever leſs dangerous than thoſe which are *continual*; as are likewiſe ſuch as *ſhift their Place*, than thoſe which are *fixed*; excepting, however, thoſe which externally affect the Viſcera, which is ſometimes the Caſe in the baſtard Pleuriſy, Gout, Rheumatiſm, *&c.*

It ſhould alſo be remarked, that the *Seat of the Pain* is not always that of the Diſeaſe: It is well known, that of the Head often depends on the bad State of the Stomach; that Obſtructions of the lower Belly frequently excite Pains in the Neck and Breaſt; that an Irritation of the Bladder is felt at the

Extremity of the Penis; and that ſome Affections of the Inteſtines, remote from the Anus, often produce a Teneſmus.

The Method of treating Pains is ſometimes attended with great Difficulty, as to diſcerning and attacking the Cauſe of them; but Practitioners are for the moſt Part a little Remiſs in this Inquiry, contenting themſelves with palliating or appeaſing them, till ſuch Time as Nature performs the reſt. *Emollients*, *Moiſteners*, *Relaxants*, and *Narcotics*, are employed in producing this Effect; the latter, however, are improper in Suffocations and Inflammations, and dangerous where a Gangrene is apprehended. Nor muſt they be adminiſtred in the Gout and Rheumatiſm, even externally. The three others fall not under the like Exceptions, being extremely beneficial in all Sorts of Pains, given internally, or outwardly applied. The Efficacy of the *Peruvian Bark* is very conſpicuous in regularly intermitting Pains; but herein the Diſcretion of the Phyſician muſt be carefully exerciſed. *Revulſions*, whoſe Buſineſs it is to attract the Blood, Humours, and peccant Matter, to ſome other Part, are likewiſe much in Uſe, and attended with the happieſt Succeſs: They are performed by Evacuation or Irritation; *taking away Blood*, applying *Leaches*, *Cupping-glaſſes*, with or without Scarifications, *Bliſters*, and *Cauſtics*, are the Means chiefly employed. The *Moxa*, a Remedy which has been highly extolled, though of late ſo much neglected, may be admitted to great Advantage into this Claſs. The like Benefit may be obtained from the bare *Immerſion of the Feet* into warm Water, or from *Frictions of the Legs*. It is ſometimes obſervable, that Diſorders of the Head, which proved obſtinate to the moſt powerful Remedies, yielded to theſe ſlight Artifices. After all, it is expedient to trace, as far as poſſible, the ſometimes *deeply hidden Source of Pains*; to examine if they do not depend upon ſome local Vice, which requires other Helps; if they do not participate of the above-named *principal* Diſeaſes; and laſtly, if they do not demand the Aſſiſtance of Surgery, as ariſing from Luxations, Fractures, Contuſions, Sprains, Hernias, *&c.*

THE

THE GENERAL PRACTICE OF PHYSIC.

Of FEVERS *in general.*

IF any Diſeaſe deſerves the Title of *Univerſal*, it is a FEVER; becauſe it diſturbs the whole *nervous Syſtem*, and perverts all the *Functions* of the Body: inſomuch, that the Motion of the Heart, Arteries and Solids ceaſe to be equal and juſt, the Circulation of the Blood and other Fluids to be free and natural, and the ſalutary Secretions and Excretions to be regular; even the Mind itſelf, when ruffled by the febrile Onſet, is affected with a *Delirium*.

Beſides, this Diſeaſe attacks all Mankind, of whatever Conſtitution, Sex, or Age, in all Climates, let their Diet and Way of Living be what they will. Sometimes it is *epidemic*, and ſeizes many at a Time, creating great Trouble and Labour to the Sons of *Æſculapius*. Nor is it always a *primary Diſeaſe*, entering the Liſts ſingly, but often the Symptom of other Maladies, as a Cachexy, Scurvy, Phthiſis, Lues Venerea, Dropſy, and renders them more cruel and dangerous.

However, it is not always pernicious to the human Race, but ſometimes vanquiſhes its own Cauſe, and ſupervening to other Diſeaſes, expels them out of the Body: Thus, Palſies, Epilepſies, Convulſions, ſpaſmodic and hypochondriac Affections have been cured by Fevers. And many *Valetudinarians* have, by a Fever, been reſtored to a healthful and vigorous Conſtitution.

But *medicinal Writers* have given ſuch various and inconſiſtent Definitions of a Fever, that it is no eaſy Taſk to determine by what Laws theſe ſeemingly contrary Effects are brought about: Though

Though among the Herd of hypothetical Authors, ſome undoubtedly come pretty near the Truth. *Hoffman* defines a *Fever* to be, *A ſpaſmodic Affection of the whole nervous and vaſcular Syſtem, annoying all the Functions of the Body, ariſing from any Cauſe which has Power to irritate the nervous Parts to a more intenſe Contraction; and when it operates, it drives the vital Fluids from the outward Parts to the Heart and great Veſſels; and afterwards, when the Syſtole of the Heart and Arteries are increaſed, they are driven back with Rapidity and Heat, through the conſtricted Veſſels, to the outward Parts again, till the Spaſms being relaxed, the Secretions are performed, and the Fever vaniſhes.*

The *formal* or *fundamental Cauſe* of a Fever, conſiſts in the *ſpaſmodic Affection* of the whole nervous and fibrous *Genus*. This plainly appears from the uſual Paſſions and Phænomena of a Fever, *viz.* a Pain in the Back, more particularly about the Loins; a Coldneſs, eſpecially of the extreme Parts; a Shivering, Shaking, Trembling, a livid Colour of the Nails; a Subſidence of the Veſſels of the Hands and Feet; a ſhrunk, dry Skin; a Yawning, a Stretching; a pale, livid Countenance; a trembling and palpitating Motion of the Heart, and Anxiety of the *Præcordia*; difficult Breathing; Inquietude, Reſtleſſneſs; a Senſation of an Ebullition of the Blood about the Heart; a contracted, weak, ſmall Pulſe; a *Nauſea*, and an Inclination to vomit; a Suppreſſion of Perſpiration; Coſtiveneſs, with thin, watry Urine.

Hence it naturally follows, that whatever has a Power to irritate and ſollicit the nervous and vaſcular Syſtem to Spaſms, is moſt likely to generate a Fever. To this Claſs belong violent *Paſſions of the Mind*, eſpecially *Terror* and *Anger*; a poiſonous, ſubtle, cauſtic Matter, either bred within the Body, or received by Infection; a Stoppage of Perſpiration; a Suppreſſion of critical Sweats; Eruptions driven back; an Abundance of purulent ulcerous Matter adhering to various Parts; Aliments over and above acrid and ſharp; corrupt and bilious Crudities lodged in the *Primæ Viæ*; exceſſive Watching; a violent Pain and Tenſion of the nervous Parts; Inflammations, Tumours and Abſceſſes; hurting the nervous Parts by ſharp Inſtruments, acrid and corroſive Drugs; Cold Baths, and, on the contrary, thoſe that are too hot or aſtringent.

According to the different Nature of theſe Cauſes, and the various Manner of affecting the Nerves, ariſe Fevers of divers Kinds; ſome are benign, others malignant; ſome are intermitting, others continual; ſome are ſimple, others compound; others regular or anomalous; eruptive, ſpotted, putrid, hectic, or ſlow. Some admit of an eaſy Cure, others a difficult; ſome

ſoon

ſoon terminate, others are protracted a long Time; and many hurry the Patient out of the World.

Yet, every frequent *Syſtole* of the Heart and Arteries diſcoverable by the Pulſe, ought not to be called a *Fever*. For theſe may often ariſe from violent bodily Exerciſe; or, from a Commotion in the Blood cauſed by hot and ſpirituous Liquors. That only which ariſes from internal Cauſes, and is preceded by Shivering, Shaking, and Coldneſs of the Extreme Parts, is properly a Fever: For there is always, as it were, a double Motion in a Fever, the one from the *Circumference* to the *Centre*, or from the external Parts to the internal, the Heart and Lungs; the other from the *Centre* to the *Circumference*. The firſt Motion is attended with a ſmall, contracted weak Pulſe, with an Anxiety of the *Præcordia* and Difficulty of Breathing; the ſecond with an increaſed Motion of the Arteries, a large Pulſe, and Heat extended even to the extreme Parts.

Theſe two Motions are evidently of a different Nature and Efficacy; the *firſt*, from the *Circumference* to the *Centre*, is not only leſs ſalutary, but morbid, καθ' ἐξοχὴν, nay, often fatal. For thoſe who die of a Fever, whether continual or intermitting, acute or chronical, die under the Spaſm, Coldneſs, Chilneſs, Shivering and Shaking, with Convulſions of the external Parts; becauſe the Heart, Lungs and Brain are at that Time more oppreſſed with the internal Congeſtion of Blood, which by reaſon of Weakneſs they are not able to repel. The other Motion from the internal Parts, from the *Centre* to the *Circumference* and minute Veſſels, is even medicinal, preſervatory, ſalutary, and vital; for, under this, and by this, the morbid Matter exciting the febrile Spaſm, is corrected, diſcuſſed, and expelled, and ſo the Fever terminates.

In reality, the *Cauſe* of the febrile Motion is an univerſal Spaſm; and that Motion never ceaſes till the Spaſm is reſolved. The Signs of its being reſolved are, a free Perſpiration, and a breathing Sweat; the Pulſe, which before was hard, impetuous and quick, becomes ſoft, moderate and ſlow; the Urine lets fall a Sediment, and the Strength gradually returns. When theſe appear all together, they declare the Solution of the Diſeaſe, and are called the *Criſis*; becauſe the Phyſician is enabled by them to pronounce of the Diſeaſe. The Ancients ſaid, a Fever was a *Struggle with the Diſeaſe*; becauſe, if the Spaſm, which forces the Fluids to the inward Parts, is ſtronger than the Heart and Arteries, driving them outwardly, the Diſeaſe is Victor, and Death enſues. But, if the retrogade Motion, cauſed by the Spaſm, is overcome by the vital Syſtole of the Heart and Arteries, thruſting the Blood outwardly, the Diſeaſe is expelled,

and

and the Health returns; which Victory happens, after this Struggle, on certain Days, generally relative to the *ſeptenary Number*; which are hence called *critical* Days, on which the Phyſician can judge what will be the Event of the Diſeaſe.

So that, to ſpeak in plain Terms, a Fever is a real Effort of Nature to rid itſelf of ſomething noxious. When there is any how ſuch a Quality or Condition introduced into the Habit of the Body, as would terminate in the Deſtruction of the Animal, if the Cauſe was not removed; in that Caſe, Nature, that is the vital Principle, raiſes a Fever, by which the peccant Matter may be attenuated, comminuted, or otherwiſe changed, and aſſimilated to the ſound Juices; or, if that cannot be, that it may be fitted for Expulſion, whether by Sweat, which is moſt frequent, or by Urine, Stool, Vomiting, Hæmorrhage, or perhaps by inſenſible Perſpiration.

A Fever, then, is to be conſidered as good in its own Nature; and though they often are fatal, yet it is more than probable, that if our Bodies were not aſſiſted with a Power of exciting them on proper Exigencies of the Conſtitution, very few of the Human Species would ſurvive the State of Infancy.

The ineffable Wiſdom of Divine Providence, therefore, cannot ſufficiently be admired, which has endowed the animal Machine of our Bodies with ſuch wonderful Power and Faculties, that a Diſeaſe, which ſeldom happens without Detriment to the Functions and Danger of Life and Health, ſhould have ſuch a Tendency to deſtroy itſelf, and be its own Remedy. Then, ſince Nature is the Phyſician, it is a pernicious Practice imprudently to ſuſpend, ſuppreſs, or deſtroy the Febrile Motions which have a tendency to Health. Her Intention ought rather to be promoted, which is by an increaſed, progreſſive Motion of the Fluids, to correct, reſolve, and, at length, to expel the morbific Matter. And, this is beſt performed by diluting, moiſtening, attemperating, aperient, corroborating and nitrous Medicines; as alſo by thoſe, which, in the Time of the Intermiſſion, eſpecially tend to promote the proper Excretions.

But, it is neceſſary to obſerve, that *Boerhaave*, and other Phyſicians of the firſt Claſs, will not allow *Spaſms* to be the Cauſe of this *febrile Struggle*; but a *Lentor* of the Blood, which, ſtagnating in the capillary Veſſels, occaſions, by the Reſiſtance, a quicker Contraction of the Heart, a natural vital Effort, excited to prevent the Deſtruction of the animal Machine, by removing the Obſtacle to the Circulation. This quicker Contraction of the Heart will cauſe a greater Influx of the nervous Fluid into the Muſcles, Blood Veſſels, and Cavities of the Heart,

and

and produce Heat; ſo that Heat is rather the Effect or Conſequence of the Fever already formed, than its Cauſe or Nature, and the Quickneſs of the Pulſe is the *pathognomonic* Sign of a Fever.

Huxham, on the other Hand, ſuppoſes that a ſimple Fever may be generated by whatever greatly rarifies the Blood, or increaſes the Quantity of the Fluids, ſuch as laborious Exerciſe, ſuppreſſed Perſpiration, or a Debauch. He ſuppoſes, likewiſe, that by laborious Exerciſe, the Blood may be ſo violently agitated and rarified, that, through its great *Impetus*, and Dilatation of the Veſſels, ſome of the red Globules may be forced into the ſerous Arteries, and ſo form an *inflammatory Obſtruction*. And likewiſe, that if the Velocity and Heat of the Blood ſhould be ſo great, as to diſſipate much of its thinneſt Part, the Remainder would be left groſs and thick, and leſs fit for Circulation through the minute Capillaries; and that the very *Serum* would be turned into a Kind of Jelly. Thus, by the mere accelerated Motion of the Blood, an inflammatory Fever may be produced, which, ſeizing on the Lungs, is a *Peripneumony*; on the *Pleura*, a *Pleuriſy*; on the *Brain* and its *Membranes*, a *Phrenſy*.

If the *Suppreſſion* of *Perſpiration* be conſiderable, and the Fibres ſtrong and tenſe, the Blood much in Quantity, and very thick, Fevers of the ſame Kind enſue.

If, to tenſe Fibres, and much viſcid, denſe Blood, a great Quantity of Wine or other ſtimulating Liquors be added, both the Quantity and Velocity of the Blood may be ſo greatly increaſed, as to bring on a dangerous acute Fever, which too often follows drunken Debauches. From the Concurrence of two, or all theſe Cauſes, a more violent one, *cæteris paribus*, may ariſe. Hence the Neceſſity of early Bleeding, cooling Emollients, and laxative Clyſters in the Beginning, and gentle, lenient Purges to cleanſe the inteſtinal Canal of the *putrid Saburra*; then plentiful Dilutents, a few nitrous Medicines, and the acid, ſaponaceous Juices of Vegetables.

Boerhaave, indeed, allows, that violent Motion will occaſion an Inflammation, though not by rarifying the Blood, but by rendering it more denſe; and, that whatever deprives the Blood of its thin Parts, will do the ſame.

For my own Part, I can hardly conceive how any Fever, but an *Ephemera*, can be raiſed without ſome Degree of Acrimony; and whenever there is Acrimony, there will be alſo *ſpaſtic Strictures*; and *Huxham* acknowledges, that Acrimony may contribute thereto; for, he ſays, that a large Uſe of very ſalt and ſpiced Meats will raiſe a feveriſh Heat, even in the moſt healthy: And farther, that a *Conſtriction* ariſing from Cold-bathing, will bring on Paleneſs, Coldneſs, Shivering, a Stoppage of the Blood in the

the cutaneous Arteries, and Repulſion towards the Heart, which is followed by an univerſal Glow or Heat.

As to *Intermittents*, his Opinion is much the ſame as *Boerhaave*'s; and, even in nervous Fevers he ſuppoſes a Kind of *Lentor*, or Ropineſs in the Humours, as the proximate Cauſe of that Diſeaſe, which ſubſiſts chiefly in the ſerous and lymphatic Veſſels, whence few animal Spirits are generated, and thoſe too irregularly ſecreted and diſtributed. As this State of the Fluids will occaſion Obſtructions, the *ſtagnant Lymph* will grow more and more acrimonious, and ſo produce a Fever; for all Humours of the Body grow more and more corroſive the longer they ſtagnate. Hence he concludes, the Seat of theſe Fevers is in the *ultima Vaſcula*, or the ſerous and lymphatic Arteries; and, perhaps, in the very Origin of the Nerves.

Gilchriſt, in his *Med. Eſſays*, accounts for Intermittents from a *Lentor*, and Acrimony; for he ſuppoſes Acrimony to be ſufficient to bring on a Fever of this Kind, by giving an univerſal Stimulus. And from this Cauſe, though the Veſſels are in a collapſed State, through a Defect of the Fluids, yet he thinks, there may be an univerſal Spaſm or Stricture of the nervous Parts; and that this is not inconſiſtent with a great muſcular Relaxation.

The highly *putrid*, *malignant*, and *petechial* or *ſpotted* Fevers, *Huxham* ſuppoſes many Times proceed from an antecedent Acrimony in the Blood, agitated by the ſupervening Fever; yet generally, the peſtilential and *petechial* Fevers have their Origin from Contagion. *Hoffman* aſſerts, that the poiſonous Vapour from whence theſe Fevers have their Riſe, inſtantly pervades the inward and nervous Parts of the Brain, and there corrupts the animal Spirits; which is evident from the natural, vital, and animal Powers immediately becoming languid, while the *Craſis* of the Blood and Humours, as yet, continue unhurt, though a putrid Fermentation is afterwards ſucceſſively induced into them all.

But, in order to gain a more diſtinct Notion of the ſeveral Kinds of Fevers, it will be convenient to give ſome Account of each, and their Difference from each other.

The moſt ſimple Kind of Fevers is the *Ephemera*, which generally terminates by an increaſed Perſpiration, in twenty-four Hours. Another Kind is the *Synochus* or *continual Fever*; it begins with a ſlight Chilneſs and Shivering, and the Symptoms have little or no Remiſſion. It uſually comes on early in the Morning, and terminates on the *fourth* or *ſeventh* Day, by bleeding at the Noſe or profuſe Sweats. A *Cauſus*, or *burning Fever*, is attended with a Burning; and, as it were, an igneous Heat of the whole Body, as alſo unquenchable Thirſt, and a dry, chapped, black Tongue, which are the *pathognomonic* Signs of this Diſeaſe.

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An *inflammatory Fever* has a natural Tendency to a *Sphacelus* or Mortification. A *malignant* or *ſpotted Fever* owes its Riſe to Infection. It particularly affects the *Lympha* and nervous Fluid; and is attended with ſudden Loſs of Strength, ſucceeded by perpetual Watching, which is the Forerunner of a Perturbation of Mind. There are likewiſe red, purple, and ſometimes white Spots, which have a threatening Aſpect. A *catarrhal Fever* is free from all theſe, and is cauſed by a ſaline, eroding Quality of the *Serum*, accompanied with a Defluxion, a Running at the Noſe, a Hoarſeneſs, a Senſe of Fulneſs in the Breaſt, and a Sort of an eryſipelatous Heat in the *Fauces* and Windpipe; though ſometimes an epidemic, malignant, catarrhal Fever may happen to rage.

There is another, which *Hoffman* calls a *Meſenteric Fever*, generally miſtaken for the former, but is neither epidemic, nor contagious, nor petechial, nor ſuddenly fatal, and generally continues longer than twenty-one Days; it is attended with Coldneſs of the Extremities, thin Urine with little Sediment; frequent Coughing, and a ſmall Excretion of crude Matter; a Redneſs and Pain in the *Fauces*; a Loathing of Food; a Want of Thirſt, with uncertain Exacerbations. This ſeems to be a-kin to the *nervous Fever*, in which the Patients at firſt ſeem languid and uneaſy, without any Marks of an evident Diſeaſe: They have Wearineſs and flying Pains; a Dryneſs of the Lips and Tongue, but little Thirſt; rather a Diſlike than Deſire of much Drink; they often in a Day find themſelves giddy, make pale Urine, are greatly diſpirited and anxious, without being able to aſſign any Reaſon for it. They have often tranſient Chilneſſes, the Pulſe at the ſame time being low, quick and unequal; they have ſometimes cold, clammy Sweats, Riſings in the Throat, and the like.

As for *miliary*, *variolous*, *morbillous* and *petechial Fevers*, they may be eaſily diſtinguiſhed from each other. In a *petechial* or *ſpotted Fever*, the Spots do not riſe up, nor render the Skin rough, nor break out with Chilneſs, flying Heat, Itching and Heat in the Skin, and a great Oppreſſion in the Breaſt, as in the miliary Fever both purple and white, which likewiſe are evident both to the Sight and Touch. The Spots of the *Small-pox* appear on the fourth Day, in the petechial Fever not till the ſeventh, and then without riſing and Suppuration. The *Meaſles* are larger, with a ſmall Elevation. The Small-pox and Meaſles on the firſt Day are hardly diſtinguiſhable, but eaſily on the ſecond, becauſe then the Small-pox begins to riſe. The *Chicken-Pox* ſhews itſelf in large Veſicles, and the other Symptoms are mild.

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With regard to *intermitting Fevers*, a *Quotidian* differs from a *continual Quotidian*, ſuch as *catarrhal Fevers* generally are; becauſe in the latter there is only an Exacerbation and Remiſſion every Day, but not a complete Intermiſſion; the Exacerbations of catarrhal Fevers are towards the Evening; and in this they differ from the ſlow and hectic, in which they commonly happen in a Morning. In a *double Tertian* the Fits come on every Day, but at different Times of the Day; that is, if on the firſt Day, the Acceſſion is at Five in the Afternoon; on the Third, it will obſerve the ſame Hour; and if on the ſecond Day the Fit begins at Nine in the Morning, on the fourth it will do the ſame.

A *ſimple Tertian* happens every other Day; this is divided into the *legitimate* and *ſpurious*. In the firſt, the Shaking is ſucceeded by Heat, Thirſt, and a Pain in the Head, and ends in about ten Hours: The Urine is of a flame Colour; in the ſecond, the Heat is not ſo remarkable; it continues twenty Hours and longer; the Urine is turbid, but not high-coloured; when the Fit is ended there remains a great Languor and Laſſitude of the Joints, with Want of Appetite.

The *Tertians*, by ſome, are diſtinguiſhed into *choleric* and *pituitous*; *regular* and *irregular*; *vernal* and *autumnal*; *epidemic* and *endemic*.

The *Quartan* has two Fits in four Days; it is *ſpurious* if it does not obſerve the uſual Times of Invaſion, which are in the Afternoon and Evening. It is ſaid to be *continual*, if there is not a perfect Intermiſſion between the Fits, with a Languor of the Body, a gentle but preternatural Heat, and a quick Pulſe.

A *hectic Fever* ſupervenes to a Dropſy, Conſumption, Atrophy, and ſcorbutic Cachexy: If it has its Riſe from Apoſtems of the *Viſcera* or *Meſentery*, or from the Corruption, Putrefaction, or Induration of the meſenteric Glands, it is incurable.

But *ſlow Fevers* generally ſucceed *Quotidians* and *Tertians* injudiciouſly treated, enormous Hæmorrhages, and tedious Diſeaſes. Likewiſe, if through the Weakneſs of the Stomach a great Quantity of Crudities are generated, a ſlow Fever will ariſe. In a *Hectic*, the Pulſe is always quick, but remarkably ſo in the Morning; whence the Cheeks are obſerved to be tinctured with Redneſs at all Times of the Day, with great Weakneſs. Whereas the Pulſe in a ſlow Fever is more natural in a Morning and before Meals; after Eating it is more quick, with a Fluſhing in the Cheeks, and the Weakneſs is not ſo great.

Of *inflammatory Fevers*, the *Peripneumony* and *Pleuriſy* are moſt common. A *true Pleuriſy* has its Seat in the *Pleura*, a Membrane which inveſts the Inſide of the *Thorax*; a *baſtard Pleuriſy* is confined to the *intercoſtal Membranes* and *Muſcles*, and

and is a Kind of Rheumatiſm. The Pain is external, and may be exaſperated by touching it, being rather vague than fixed: Sometimes it extends itſelf to the *Scapula*. The Cough is rather dry than moiſt, without Blood, and the Fever is ſmall. It is moſt troubleſome in the Evening, and is generally ſoon cured without Bleeding. In a *true Pleuriſy*, the Pain is more acute and fixed, the Fever more intenſe, and the Breathing more difficult. In the *Peripneumony*, or Inflammation of the Lungs, all the Symptoms concur, but the Pain is not ſo great, though it is extended to the Back and *Scapula*; but there is a greater Oppreſſion of the Breaſt, and Difficulty of Breathing, likewiſe the Spittle is tinctured with dark coloured Blood.

An *Inflammation of the Stomach* may be diſtinguiſhed from a *Cardialgia*; for though in both there is an Anxiety, Inquietude, with a preſſing burning Pain about the Præcordia, yet in the former there is a Senſe of the moſt intenſe Heat, and the Stomach will hardly bear either Food or Medicines; beſides, there is a Fever, with a quick, unequal, depreſſed, and weak Pulſe, none of which occurs in the *Cardialgia*. It is diſtinguiſhed from an *Inflammation of the Liver*, eſpecially of the hollow Part next the Stomach, in having a moſt violent, fixed Pain at the Pit of the Stomach; in the other it inclines more to the Right, towards the ſpurious Ribs, nor does the Pain and Anxiety increaſe from admitting Things into the Stomach.

Quinſies are of various Kinds: Sometimes the Inflammation beſets the interior or muſculous Parts of the *Larynx*, and then there is neither Redneſs nor Tumour externally, but a great Difficulty of Breathing, even to Suffocation, attended with an exquiſite acute Fever, and it often kills in twenty-four Hours: This is called a *Kynanche*. Another Kind chiefly affects the inward Muſcles of the *Pharynx*, and the Difficulty of Swallowing is greater than that of Breathing. This is alſo without any remarkable external Redneſs or Swelling, and is termed a *Synanche*. When a Redneſs and Swelling appear outwardly, and chiefly affect the Wind-pipe, or *Larynx*, it is called, *Parakynanche*; but if the Gullet or Pharynx, *Paraſynanche*.

A *Quinſey* is diſtinguiſhed into the *true* and *ſpurious*; the former proceeds from an *inflammatory Congeſtion* of the Blood, is a moſt acute Diſeaſe, and generally more inward. In the *ſpurious*, there is a Congeſtion of *Lympha* in the glandulous Parts of the Mouth, *Fauces*, and Neck; it is attended with a leſs dangerous but more tedious Fever. When the Tongue and Region of the Fauces are beſet and covered with a *copious Mucus*, it is complicated with a *catarrhal Fever*; nor is it leſs fa-

miliar to the *Scorbutic* and *Cachectic*; the Fever is of longer Duration, and a fetid Smell proceeds from the Mouth.

The *dry*, *internal Quinsey*, or *Kynanche*, should not be confounded with the *Spasm* which constringes the Fauces of *hysteric Women*, and renders their Breathing and Swallowing difficult, and comes and goes without Danger; for the true, internal, *sanguineous Quinsey* is known by a burning, pricking Pain within the Fauces; the Tongue is red, tumid and turgid with Blood, nay, sometimes black; the Face looks red and inflated; the temporal Arteries have a strong Pulsation; some have a Head-ach, others are sleepy, and others faint away.

The *Phrensy*, or Inflammation of the Membranes of the Brain, is manifest from a furious *Delirium*, shining Eyes, which are set, as it were, in the Head, a burning Fever, continual Watching, a violent Pulsation of the Arteries about the Head and Temples. It differs from *Madness* in being acute, and is generally a dangerous Symptom of a Fever; from a *Delirium* in the Degree, which is milder and sooner removed. Melancholy and Madness are chronic Diseases. In the *Hydrophobia* the Patient cannot drink any Liquid, but often falls into Convulsions in attempting it.

An *Inflammation of the Liver* is either in the concave or convex Part. The former is known by Hiccups, Vomiting, Heart-burn, a Heat and Pain at the Pit of the Stomach, towards the Right Side; a Fever, a dry Cough, difficult Inspiration and Costiveness. In the latter, the Liver is affected with an erysipelatous Inflammation, with a heavy, constrictive, and pricking Pain in the spurious Ribs, with a Cough, Fever, and difficult Breathing; and in this it imitates the *bastard Pleurisy*, but is known from it by a milder Fever, easier Breathing, and the Pain being below the Diaphragm. Besides, a *bastard Pleurisy* commonly goes off on the seventh Day by Sweat or an Hæmorrhage. On the contrary, in an Inflammation of the Liver, if the Cure is protracted, Convulsions supervene, and by reason of an Abscess it is apt to turn to a Dropsy, a Cachexy, or an Hectic.

A *simple Nephritis* is an Inflammation of the Kidneys, with a fixed Pain in the Loins, of the tensive, pressing Kind, and continues long; whereas the Pain, in a Fit of the Gravel, is much more violent and sharp, and not quite so much confined to a Place, but extends itself towards the Sides; at length it is felt not in the Kidney but in the Beginning of the *Ureter*, and in the *Ureter*, from the Gravel or small Stones that pass through them; which does not happen in a *simple Nephritis*.

Of

Of *external Inflammations* the *Eryſipelas* is moſt frequent, which only affects the Superficies of the Skin with Redneſs, Tumour, and Pain; and is eaſily diſtinguiſhed from a *Phlegmon*, which reaches to the ſubjacent Muſcles. A *Phlegmon* is known from a *Gangrene*, becauſe this penetrates not only to the muſculous, but to the tendinous and nervous Parts. It has a greater Heat and Pain, enlarging itſelf with a hard Tumour and Redneſs, which at length changes to livid and black.

Summary of the BOERHAAVEAN DOCTRINE *and* TREATMENT *of* FEVERS *in general.*

THE greateſt Caution is neceſſary in ſearching out the very hidden Nature of a *Fever*. In this Caſe we are not to aſſume any thing from Hypotheſes, previouſly contrived, however ingenious they may ſeem; but we are only to conſider the Appearances of the Fever preſent in the Body, and weigh each of them apart, that, by afterwards comparing them together, we may thence, by juſt Reaſoning, be led to underſtand the proximate Cauſe of the Fever. When an hypothetical Method is taken to diſcover the Nature of Diſeaſes, the curative Part may be founded on a falſe Hypotheſis.

The only three obſerved Symptoms common to all Fevers, are, a *Shivering*, a *quick Pulſe*, and *Heat*.

A Shivering is meant by Phyſicians to ſignify that Tremor or Shaking of the whole Body, which ariſes from a Senſation of Cold; as when a Perſon, being warm, ſuddenly expoſes himſelf to the cold Air: And this Symptom attends every Fever which ariſes from internal Cauſes.

To denominate a Fever *acute*, the Rule is, that its ſwift Advance be attended with Danger; but the *ſlow* Fever is ſo called from its ſmall Advance, whether Life be in Danger or not. Nor is the Quartan an Exception, ſince it hardly ever proves fatal, unleſs by ſome Error in the Patient or Phyſician, and ought, therefore, to be ranked among Diſeaſes of a long Continuance, as well as a Hectic Fever, from whence very few eſcape. *Celſus*, therefore, very properly defines Diſeaſes of long Continuance to be thoſe *in which neither Health nor Death is at Hand.*

As *epidemical* Fevers ariſe from ſome common Cauſe, they have uſually almoſt the ſame Courſe and Symptoms, and require the ſame Method of Cure: But *particular* Fevers, ariſing

from very different and often oppoſite Cauſes, require to be treated in a different Manner in different People. Even HIPPOCRATES has taken Notice of this Diſtinction in Fevers: But we much more frequently meet with acute Fevers epidemical, and ſlow ones more rarely, among which laſt Quartans are the chief.

As in all Fevers the Velocity of the Pulſe is increaſed, it follows, that the Heart contracts, in Proportion, more frequently; and thence again, that the Cauſes from whence the Contraction of the Heart reſults, are increaſed. But in what Manner theſe Cauſes act, which excite the Heart to a quicker Contraction; and after what Manner, as in an intermitting Tertian, renewed every other Day, when it afforded no Appearances at all on the intermediate Day; theſe are hitherto concealed from all of us: For all that we know of the Nature of a Fever, we diſcover only by its inſeparable Effects and Appearances; nor can human Underſtanding proceed farther in the Inveſtigation.

Since the Dilatation of the Artery is ſynchronous with the Contraction of the Heart, the Pulſe cannot be accelerated, unleſs the Contraction of the Heart becomes quicker at the ſame Time, as that is the only and intire Cauſe of the Dilatation of the Arteries. For all that has been ſaid by ſome Authors, about Ebullition, Fermentation, or Efferveſcence of the Blood, *&c.* in the Cavities of the Heart, has been proved to be falſe, and contrary to Experiment; and it appears moſt evident, that the Cauſe of propelling the Blood from the Heart into the Arteries, does not reſide in the Blood itſelf, but in the Heart, which immediately receives the Blood. A Fever may, therefore, deſervedly be called a Diſeaſe in the Heart; ſince in every Fever the Action of that muſcular Organ is changed, and that by being brought into more frequent and quicker Contractions.

It appears from Anatomy and Phyſiology, that the muſcular Motion of the Heart renders its own muſcular Fibres paralytic; and that by this Means the whole Heart is ſo diſpoſed, that a new Contraction muſt follow the Moment after: For the Nerves ſent to the Heart are ſo ſituated, that they muſt be compreſſed by the Dilatation of the largeſt Arteries, diſtended by the Blood expelled from the Heart, the Aorta, and the pulmonary Artery; during the Dilatation of which the venous Sinuſes and Auricles of the Heart are likewiſe diſtended; and therefore the Influx of the Spirits through the Nerves into the muſcular Fibres of the Heart, is thus impeded, while at the ſame time all the Blood is preſſed through the Veſſels diſperſed

through-

throughout the Subſtance of the Heart, which therefore looks pale during the Syſtole. Thus are the two Cauſes, abſolutely required to muſcular Motion, intercepted or removed; namely, the Influx of the Spirits, and of the arterial Blood. But in that Moment of Time, which the Heart, as it were paralytic, has its Cavities filled by the influent venal Blood, the Aorta is contracted, and, with great Force, urges the Blood through the Orifices of the coronary Arteries, throughout the whole Subſtance of the Heart, and, juſt now, the Nerves are no longer compreſſed, as the Arteries are then contracted, and the Sinuſes and Auricles emptied; whence they freely tranſmit the Spirits ſent from the Cerebellum, through the cardiac Nerves, to the Heart: And therefore the two Cauſes of muſcular Motion will be renewed, and thence the Contraction of the Heart will be inſtantly repeated.

A Quartan is uſually accompanied, in the Beginning of a Fit, with a violent and long-continued Coldneſs; but in the Beginning of a Fever of one Day's Continuance, there is often only a very ſlight Senſe of Cold perceived.

There very frequently is ſo great a Weakneſs obſerved in the Pulſe, during the cold Fit of a Fever, that the Stroke of the Artery is hardly perceptible to the Touch; and this more eſpecially in old Perſons afflicted with the Quartan Fever in Winter; and then alſo the Quickneſs of the Pulſe is ſo very great, that it ſeems rather to tremble, than to be made up of a diſtinct Dilatation and Contraction. But where there is ſo great a Celerity of the Pulſe, as to be ten times quicker than what is natural, no one can diſtinguiſh its Numbers; there is only a ſurprizing undulatory Motion perceived by the Finger. If the Hand be applied to the Breaſt, the Heart ſeems to tremble, inſtead of beating powerfully againſt the Ribs, as is uſual in Health; though, in this Caſe, the Artery will ſometimes dilate more powerfully, and then again appear extremely weak and quick: And ſometimes a true Intermiſſion of the Pulſe may be diſcerned; and then the Patient is apt to complain that his Eyes are dim, or that he cannot hear, or ſcarcely feel. Here the ſame thing happens as before Death in the Diſſection of living Animals. We there ſee the Heart, being no longer able to expel its contained Blood, tremble, and evacuate only a Part, being now unable to dilate the Arteries: In the mean Time the Auricles and venous Sinuſes are greatly diſtended, and, after a few Moments, become ſuddenly contracted, forcibly projecting their Blood into the Ventricles of the Heart, which, being then irritated by the Quantity and Impetus, is very powerfully contracted. Then again it trem-

bles and languiſhes till it be excited by the ſame Cauſe, or till all Motion ceaſes by the Death of the Animal.

The lively Colour obſerved in a healthy Perſon ariſes from the Veſſels filled with red Blood; ſo that when the Force of the Heart, from any Cauſe, begins to be weakened, not being able to propel the Blood to the Extremities of the Body, and the Arteries, at that Time, contracting by their own Elaſtacity, eſpecially towards their Extremities, which are the leaſt urged by the Force of the Heart, the Blood is by that Means repelled into the ſmaller Branches: Therefore the ſubcutaneous Arteries, which are ſome of the ſmalleſt in the Body, will be, in a great Meaſure, emptied; whence a Paleneſs muſt ariſe.

The various Parts of the Body are the more flexile, in Proportion to the greater Abundance of Humours, with reſpect to the ſolid Parts: But in the Beginning of a Fever, the Force of the Heart being weakened, cannot fill the ſmalleſt Veſſels in the extreme Parts of the Body; and therefore theſe being contracted, and repelling back their contained Juices into the larger Veſſels, this will be one Cauſe of the Rigour or Stiffneſs in the Beginning of Fevers. Beſides this, the Cold, which contracts every thing, will increaſe the Coheſion of the ſolid Parts, and conſequently augment their Stiffneſs. Since therefore theſe two Cauſes concur, it is no Wonder that a great Stiffneſs ariſes in the Time of a cold Fit of a Fever.

In intermitting Fevers, if the Patient is not very weak, or advanced in Years, the hot Fit is ſo much the more intenſe, as the preceding cold Fit was more violent.

It is one of the beſt Signs, if the febrile Heat be equally diffuſed throughout the whole Body, even to the Extremities; for it denotes that the Veſſels are pervious, and that the Blood has a free Circulation; but in the worſt Fevers, which are then commonly fatal, there ſometimes happens an intenſe Heat, perceived about the vital Organs, while, at the ſame Time, the extreme Parts of the Body are cold; which denotes the Circulation to be deficient in thoſe Parts; and that the impervious Blood begins to ſtagnate, or accumulate about the vital Viſcera; while, in the mean Time, the Heart being more ſwiftly contracted, propels the Blood with a great Velocity through the Veſſels, which are yet pervious in the Parts next adjacent.

When, in ardent Fevers, the Blood, by an inflammatory Tenacity, ſtagnates in the ſmalleſt Arteries, theſe, being diſtended, compreſs the adjacent ſecretory and excretory ſmall Ducts; and hence the whole external Skin, Tongue, inſide of the Mouth, Fauces, *&c.* are invaded with a burning Heat;

and

and when the Patient recovers from theſe moſt dangerous Diſeaſes, almoſt the firſt Symptom of Nature's overcoming the Diſeaſe, is a Return of Moiſture into all theſe Parts.

It is a general Indication in every Fever, ſo to moderate the Force of it, that it may not, by deſtroying the Solids, and thickening the Fluids, produce Inflammations, Suppurations, Gangrenes, *&c.* nor yet to let it ſubſide ſo low as to be incapable of attenuating, changing, moving, and expelling the morbific Matter: Nor is it poſſible too much to inculcate this general Rule, as it is of the greateſt Moment. Many have entertained too ill an Opinion of the Name of a *Fever*, and believe that it ought ever to be engaged with the moſt forcible Methods; when, at the ſame Time, it appears from the Writings of the Ancients, and the Obſervations of the beſt Modern Phyſicians, that a Fever often moſt happily cures itſelf, provided it be kept under a due Regulation, and moderate Degree.

A Fever may terminate in Health two Ways: as when the morbific Matter is ſo changed by the Force of the Fever itſelf, that being aſſimilated with the healthy Humours, it may be freely carried through the Veſſels, without any Diſturbance to the equable Circulation; or elſe, the ſame morbific Matter being ſubdued, ſo as to have a pervious Paſſage, is then expelled out of the Body, and this either by an inſenſible or a ſenſible Evacuation.

Sweats, Vomiting, and a Diarrhœa, are Evacuations only ſerviceable in as far as they expel the febrile Matter, either wholly or in Part from the Body, whereby the Diſeaſe may be entirely removed, or at leaſt alleviated. The principal Sign whereby the Uſefulneſs of theſe Evacuations is known, is derived from their Effects. Now there is great Reaſon to hope that a Vomiting, Sweat, or Diarrhœa, will prove uſeful, if they happen after the Coction or Height of the Diſeaſe; for thoſe which come on in the Increaſe of the Diſeaſe, are rather ſymptomatical than critical Evacuations, and often do more Hurt than Service.

Old People bear Abſtinence the moſt eaſily: This is indeed true while they are in Health, becauſe they are nouriſhed neither for Increaſe nor Strength, but only to ſupport their Being; and in theſe the Cavities of a great Number of Veſſels are either entirely cloſed up, or very much leſſened; whence a leſs Quantity of Humours is required to flow through them: Add to this, that all the Veſſels being now more rigid, yield leſs to the impelled Liquids; and many of the Humours being expelled from the Body in Fevers, will occaſion Dryneſs from the

Diminution of the Quantity of Liquids. Upon these Accounts Disorders happening in old Age will be increased by a Fever, if the Patient is not relieved by a moist and softening Diet. And here more especially the Food must be given often, and in small Quantities, because the weak vital Strength of the Aged would be destroyed by greater Quantities; and they require but small Supplies, provided they are frequently administered: Add to this, that Abstinence or Fasting in great old Age, often brings on a fatal Syncope; because the Quantity of Humours being lessened, the rigid Vessels do not contract themselves in Proportion; so there will be no Action of the Vessels upon their contained Fluids, whence ensues Stagnations and Death; and thus the Reason is evident, why Abstinence is so prejudicial to old Persons in Fevers.

In consumptive Persons, whose Lungs waste away by a slow Suppuration, there is a continual slight Fever, which often increases every Day at the Time when fresh Chyle is plentifully supplied, and driven, together with the Blood, through the Lungs; some Practitioners, therefore, believing this Fever to be of the intermitting Kind, have made Trials of the Virtues of the Bark, but always with the most fatal Success; for the purulent Cause remaining, the febrile Motion must necessarily be suppressed, whereby the collected Matter ought to have been expelled; whence the greatest Anxieties, and sometimes Death itself, have followed from that Practice. The whole Cure of such a Disorder consists in washing out, as it were, and detergingthe purulent Matter; and then in consolidating the Parts thus cleansed from the Matter, as in the Cure of a clean Wound.

The more severe a cold Fit is in the Beginning, so much the more dangerous it is; for this Coldness denotes a Diminution of the Circulation, and the less the Circulation, the nearer the Disease approaches unto Death, wherein the Circulation wholly ceases: But if, at length, the vital Powers overcome this Coldness, being irritated by the same Cause which produced the Fever, they render the circulatory Motion so violent or swift, and excite so strong a Heat, that the worst Consequences of every Kind may be feared: For the very tender Vessels of the Encephalon and Lungs, cannot bear so great a Force without the greatest Danger; and the great Heat following after the most intense Cold, may dissipate the most fluid Parts of the Humours, and inspissate the rest; whence there is the greatest Danger, lest the Humours, becoming unfit for obtaining a Passage, should adhere to the narrow Extremities

of

of the Arteries, and ſo produce Inflammations and Gangrenes of the moſt pernicious Kind.

A ſevere Tremor is bad in Fevers, as it denotes that both the nervous and arterial Fluid is either deficient or unpaſſable; and, at the ſame Time, ſuch a violent Trembling ariſing much in the Beginning of a Fever, denotes a great Strength of the efficient Cauſe, capable of exciting ſo extraordinary a Diſturbance in a Body which has, perhaps, been hitherto healthy; and likewiſe becauſe a great Trembling indicates a proportionable Obſtruction oppoſing the Circulation of the Humours.

Moreover, Tremblings which ariſe in the Courſe of Fevers, unleſs they precede or accompany critical Evacuations, are often of the worſt Import, as generally indicating that the Matter of the Diſeaſe inclines to the Head, diſturbing there the natural and equable Motion in the very Origin of all the Nerves, the medullary Subſtance of the Encephalon.

The general Cure of Fevers requires four Things; a Correction or Expulſion of the acrid irritating Matter; a Diſſolution and Expulſion of the febrile Lentor; a Mitigation of the Symptoms; and laſtly, the Re-eſtabliſhment of the Patient in perfect Health.

Thoſe Fevers are termed continual and putrid, wherein the Humours degenerate much from their natural and healthy State; and, at the ſame Time, incline to Putrefaction; and hence the various Degrees of Malignity are obſerved, according to the greater or leſs Intenſity or Degeneracy of them.

A Dryneſs of the whole Skin, Noſtrils, Mouth and Tongue, ariſe from a Diſſipation of the moſt thin and watery Juices of the Blood, by the febrile Heat; and partly becauſe the reſt of the Blood becoming unpaſſable, and adhering in the larger Veſſels, diſtends them ſo as to compreſs the adjacent ſmaller Veſſels; and therefore in ſuch Patients the Skin appears rough and dry, as the ſubcutaneous Veſſels, diſtended with unpaſſable Blood, compreſs the very ſubtile exhaling Veſſels, while, at the ſame Time, there is a Deficiency of the thin ſerous Parts of the Blood; the ſame holds true alſo in the Eyes, Noſe, Mouth, and Tongue. Hence HIPPOCRATES pronounces, that *thoſe who die of an ardent Fever periſh with Dryneſs.*

GALEN obſerves, that an exquiſite ardent *Fever retains all the Signs of an exquiſite* Tertian, and that *it differs only in not invading with a Rigor or Shivering, and in not coming to perfect Intermiſſions:* For which Reaſons he ranks an ardent Fever, not among the *Synochi*, or Continent, but among the continual remitting Fevers. But in the Fevers which he calls *tertianary*

tianary (τριταιοφυεις) or *ſemitertianary*, which he likewiſe refers to an ardent Fever, the Exacerbations happen always on unequal Days. It ſhould indeed ſeem probable, that the ardent Fever has ſomething of the Nature of an Intermittent; ſince frequently when ſuch Fevers are extended to a great Length, they, at laſt, change into Intermittents; and even, ſometimes, when intermitting Fevers ſpread epidemically, and appear early in the Summer Months, they often paſs under this Appearance.

The Blood being deprived of its thinneſt Parts in ardent Fevers, tends to Concretion, and begins to ſtagnate in the Arteries; whence it is accumulated in thoſe Veſſels, and diſtends them; while, in the mean Time, they preſs out only the more fluid Parts of the Blood into the Veins; whence, though a Vein be opened frequently in ſuch Diſeaſes, it is manifeſt only that Part of the Blood is removed, which is beſt diſpoſed to flow through the Veſſels; whereas an Hemorrhage from the Noſe, diſcharging the Blood from the Arteries themſelves, turning off the Impetus and Quantity of Blood, more eſpecially from the Encephalon, whoſe Functions, in theſe Diſeaſes, are uſually ſo much diſturbed.

The beſt Hemorrhage is that which happens on a critical Day; *viz.* the 4th, 7th, 11th, 14th, 17th, 21ſt, *&c.* called legitimate critical Days; but thoſe happening on ſome incidental critical Day, as the 3d, 5th, 6th, or 9th, are leſs ſalutary; if they fall out on other Days, they are altogether to be ſuſpected; and the ſame will hold good of the other critical Evacuations.

A Redneſs of the Face, beſet with Drops of Sweat, is a very bad Sign in an ardent Fever; becauſe it denotes an inflammatory Spiſſitude of the Blood oppoſing its Paſſage through the Veſſels, and that it is either forced into other improper Veſſels, or elſe adheres about the ſmalleſt Extremities of the ſanguiferous Arteries, and that a very ſmall Portion of it can, as yet, be expreſſed; as alſo, that Death being now at hand, the Extremities of the ſmall exhaling Veſſels in the Skin are ſo relaxed, as to tranſmit a thick and groſs Sweat, according to a juſt Obſervation of HIPPOCRATES——*The general Cauſe or Reaſon of Sweats ought to be known; ſome are from a Relaxation of the Parts of the Body, and others from the Violence of Inflammation.*

A Swelling under the Ear, not coming to Suppuration, is deſtructive: When Parotids ariſe in an ardent Fever, it is a Sign that the Febrile Matter is critically depoſited about the Glands there ſeated; and as the Blood in this Fever is deprived

prived of its moſt fluid Parts, and, at the ſame Time, has acquired a greater Acrimony, therefore a mild Reſolution of theſe Parotids cannot be expected, ſince, to effect that, a mild State of the Humours is neceſſary, a ſedate Motion of them, and that the obſtructing Matter be not over compact. It is therefore a Suppuration only that can take Place here, which, if not procured, a worſe Manner of terminating the Inflammation muſt be expected. Sometimes the ſwelled Parotids ſuddenly diſappear, from the morbific Matter returning again into the Blood; whence the Worſt returns, and even Death itſelf may be expected in an ardent Fever.

HIPPOCRATES juſtly admoniſheth to *conſider carefully whether the Fever is abated or increaſed.* For if it ſuddenly increaſes when the Parotids diſappear, we know that the febrile Matter mixing again with the Blood, produces more Diſturbances; and that therefore a bad Termination of the Diſeaſe is to be feared. But if no ſuch Increaſe of the Fever happens, there is Reaſon to hope that the Matter will, in a little Time, eſcape by other Paſſages, or be depoſited upon ſome other Part. Neither yet muſt we believe Health to be always an infallible Conſequence of Parotids coming to Suppuration in ardent Fevers: For Criſes made by Abſceſſes or Depoſitions, are of all the unſafeſt.

A Conſtipation of the Bowels in ardent Fevers is never of Service; for ſince theſe Fevers are kindled up by the Bile, rendered more acrid or corrupt; and as even a ſound Bile is ſoon corrupted by an immoderate Degree of Heat, it muſt be evidently more uſeful for theſe foul Humours to be diſcharged from the firſt Paſſages; otherwiſe, by the Acceſs of Air, with the Heat and Stagnation, they may degenerate into the moſt malignant Putrefaction in a very ſhort Time. Hence it is that Clyſters are ſo ſerviceable in ardent Fevers, not only as they dilate, relax, and cool, but alſo as they diſcharge out every thing putrid lodged in the Inteſtines. It is therefore no bad Sign for the Belly to be looſer than ordinary in theſe Fevers.

An ardent Fever differs from a putrid Synochus or Continent, inaſmuch as its Courſe is not one continued Strain from the Beginning to the End, but is attended with remarkable Fits of Remiſſion and Exacerbation. It is diſtinguiſhed from intermitting Fevers, in that the Force of the Fever does not perfectly ceaſe; and from the ſlighter continual remitting Fevers, by its intenſe Heat chiefly, which is greater about the vital Viſcera, and more moderate towards the extreme Parts, attended with unquenchable Thirſt, and a Dryneſs of the whole Body.

An Inflammation may be excited throughout the whole Body, although the Blood continues to flow through the greateſt Number, if not all the ſanguiferous Arteries: But that ſuch Inflammation does obtain in an ardent Fever, we are taught from the Redneſs of the Face, and frequently of the whole Skin, ſometimes continuing ſo even after Death. The Inſpection of Bodies dying of this Fever, demonſtrates the cortical Subſtance of the Brain, in which naturally there is no red Blood to be found, to be all over red, as if it were artfully injected.

They are much deceived who judge that Sweat ought to be promoted, thinking thereby to evacuate all the febrile Matter, becauſe in an Intermittent Fever the Fit goes off with a copious Sweat. Daily Obſervations teach us, that thoſe are much more difficultly recovered from Intermitting Fevers, who ſeem, as it were, to melt away by thoſe moſt profuſe Sweats; neither is their Cure practicable, unleſs theſe Sweats be firſt ſuppreſſed. Hence alſo the Sweat, which attends at the Cloſe of the Fit, is to be moderately promoted by Fleſh Broths, Ptiſans with Wine, and the like, which afford Plenty of liquid Nouriſhment: But by no Means by Medicines, nor the Heat of Bed-cloaths, leſt with ſuch Sweats thoſe Fluids fly off which ought to be retained. The Weakneſs and Dejection which follow upon thoſe profuſe Sweats, evidently demonſtrate how prejudicial they are.

Quartan Fevers, which have been diſturbed by no powerful Medicines, and have been gradually removed by a proper Regimen, in the Spring Seaſon, have left People more ſtrong and firm, and leſs ſubject to Diſeaſes than before. For theſe Fevers contain a Sort of Epitome of that Kind of Life which CELSUS recommends to ſome Perſons in his firſt Book. Intenſe Cold is followed by great Heat; during the Time of the Paroxyſms, the Patients have generally an Averſion to all Sorts of Food, to which they often have a ſtrong Appetite on the intermediate Well-days: Moreover, by a long continued Quartan the Body is frequently much emaciated, all the Fat being diſſolved and carried off by Urine, and the other Emunctories, even as much as by Mercury itſelf, or ſudorific Decoctions; whence an almoſt radical Change of the Humours is obtained, by a Reſolution and Expulſion of the Old, ſo that the Body is aptly diſpoſed for the Reception and Reſtoration of new vital Matter; and thus, by a prudent Management in theſe Fevers, will the Conſtitution be diſpoſed for Longevity.

If now it be conſidered, that in the cold Fit of Intermitting Fevers the whole Body trembles and ſhakes violently often for ſeveral Hours, almoſt as much in the internal as in the external

ternal Parts; that the Extremities of the Arteries being contracted, propel the Humours back into the larger Trunks, as evidently appears from the Paleneſs, and an Opportunity they afford for happily removing the obſtructing Matter adhering to the Extremities of the Arteries; it will not ſeem wonderful, that many Diſorders ſhould be thus relieved or removed, which are not at all affected by other Medicines; more eſpecially as ſoon as there follows a rapid Motion of the Humours through all the Veſſels, whereby the obſtructing Matter which was lodged in the Viſcera, being rendered moveable by the repeated Concuſſions, is further reſolved. Hence the Reaſon appears, why theſe Fevers ſo frequently remove the moſt inveterate Diſorders from the Body, after they have been in vain attempted by other Medicines.

The beſt Methods recommendable towards the Cure of theſe Fevers, are ſuch as conſpire together with the Diſeaſe itſelf; *to reſolve what is concreted, to open the obſtructed Veſſels*; and thus *to reſtore the equable and free Circulation of the Humours through the Veſſels.* In the Spring Seaſon, and in juvenile Patients, the hotter Medicines muſt not be uſed: Autumnal Fevers, on the other hand, more eſpecially thoſe which continue on till the Winter, require warmer Medicines, eſpecially if the Patient's Strength is weakened by the Diſeaſe, or if the Body languiſhes by an advanced old Age; for the *Rad. Contrayerv. Serpent. Virgin. Saffron*, and the like moſt penetrating Aromatics, are of the greateſt Uſe. In cold phlegmatic Habits, alkaline Salts are the beſt Aperients, which yet are often injurious to warm and bilious Conſtitutions; and therefore thoſe of the ſaline neutral Kind are preferred, as Nitre, *Sal polychreſt. Tart. vitriolat.* &c. Purges and Vomits are not only uſeful as Evacuants, but alſo becauſe they wonderfully ſtimulate and ſhake the Frame, ſo as to change its whole Condition. The *Cortex Peruv.* ſhould never be given in Fevers, where there is a continual fixed Pain, or the Senſe of an inward burning Heat, with other Symptoms of an Inflammation.

Vernal intermitting Fevers are of ſo mild a Diſpoſition, as to require no Medicines, but generally go off ſpontaneouſly. They are only obſerved ſtubborn in ſuch, who, having their Blood of a very weak Craſis, or Texture, it is ſo eaſily diſſolved, that they waſte away with profuſe and weakening Sweats; but even in theſe they are curable, eſpecially by the Uſe of the Bark: But Autumnal Intermittents are much more difficult to remove, and often require the utmoſt Attention of the Phyſician, with every Aſſiſtance of Art, in order to cure them.

An

An acute continual Fever, Inflammation, and the Organ, whoſe Functions are thereby injured, are three Things chiefly to be conſidered in acute inflammatory Diſeaſes.

In a true Phrenzy the Brain is primarily affected in an acute continual Fever; that is to ſay, the Cauſe of the Diſeaſe is not produced in ſome other Part of the Body, and tranſlated from thence to the Brain; but is ſeated in the Brain itſelf, or its inveſting Membranes, from the very firſt Attack of the Diſeaſe, although, by the Violence of the Fever, the Diſorder may be increaſed, which is already ſeated in the Brain. In the ſymptomatic Phrenzy, the Cauſe lodges in ſome other Part, and is afterwards thence tranſlated into the Encephalon.

A conſiderable Degeneracy of the Humours is ſcarce ever obſerved without a concomitant Diſturbance of the Encephalon.

A black Tongue denotes either a Deficiency of the thin Lymph of the Blood, or that the larger Veſſels, diſtended with the unpaſſable Blood, compreſs the adjacent ſmaller ones; whence the exhaling arterial Ducts at the Surface of the Tongue become dry and gangrenous: Hence a black Tongue, eſpecially if it be dry at the ſame Time, preſages the very worſt Condition of the Humours.

Lethargic, comatous, and cataleptic Diſorders, are of the worſt Preſage in a Phrenitis.

A Flux from the Bowels is ſalutary, not only becauſe it diſcharges the morbific Matter, but alſo becauſe it empties the abdominal Viſcera of the Humours which flow thither, and leſſens the Reſiſtance to the Impulſe of the Blood; and by that Means happily diverts the Impetus and Quantity of the Humours from the Head; an Event of the utmoſt Conſequence in the Cure of a Phrenzy.

The moſt dangerous Phrenzy may ariſe from ſleeping in the open Air, with the Head expoſed to the hot Solar Rays.

Of INTERMITTING FEVERS, *or* AGUES.

THERE is no Fever which diſcovers the *Nature* and *Genius* of the febrile Motion in general, and infeſts the Veſſels and nervous Parts, ſo much as the TERTIAN. It ſpares neither Age, nor Temperament, nor Sex; and makes its Onſet every other Day.

If

If it is of the regular Kind, it is attended with the following Symptoms: At firſt, the Head achs, the Limbs ſeem weary; there is a Pain in the Loins about the firſt *Vertebra* of the Back, which aſcends towards the *Epigaſtrium*, with a painful Senſe of a Tenſion in the *Hypochondria*, and Coſtiveneſs; then comes on a Coldneſs of the external Parts, eſpecially of the Noſe and Ears, a Stretching, Yawning, a Shivering and Shaking, ſometimes even to make the Bed tremble under the Patient; the Pulſe is ſmall, contracted, and weak; again the Patient is troubled with Thirſt; then follows a *Nauſea*, with a fruitleſs Reaching to vomit; again, a pituitous, bilious, or green Matter is brought up, commonly joined with a troubleſome Cough, and an Expectoration of Phlegm, derived from the acid clammy Crudities of the Stomach; to theſe ſucceeds an anxious, burning, and dry Heat, which pervades the whole Body. The Face, which was collapſed and pale, the contracted, rigid Skin, and the empty Veſſels of the Hands and Feet, begin to riſe, grow red and turgid; the Pulſe becomes more great, full and quick; the Reſtleſſneſs increaſes, the Breathing is more difficult; and the Patient, with his Eyes almoſt cloſed, begins to talk a little wildly.

Afterwards, the Symptoms begin to abate, the Heat becomes mild, the Skin relaxes and grows moiſt; the Urine is of a flame Colour, but without a Sediment; the Pulſe is more moderate, and then a Sweat breaking out, terminates the Paroxyſm. The Duration of the Fit is uncertain, ſometimes it ends in ten or eleven Hours, and ſometimes not till twenty-four. On the *intercalary Day*, the Body is ſtill feeble and coldiſh, with a Diſpoſition to ſhiver, the Pulſe is ſlow and weak, the Urine is turbid and depoſits a Sediment, or there is a *Nubecula*, which ſhews a Diſpoſition thereto.

In the BASTARD or SPURIOUS TERTIAN, the Symptoms are milder, the Heat is not ſo burning, the Vomiting is not ſo frequent, and the Urine is not ſo high-coloured; but then it is a more lingering Complaint, and on the well Day there is a Laſſitude and Want of Appetite. This attacks Men of an inactive Diſpoſition, and Women whoſe Bodies are of a looſe Texture, in the Autumnal Seaſon.

The Fit of the IRREGULAR TERTIAN obſerves no particular Time, for it ſometimes comes on in the Morning, ſometimes in the Afternoon, in the Evening, or at Midnight. The Paroxyſm is ſometimes longer, ſometimes ſhorter; the Urine lets fall no Sediment within the Time of Remiſſion or Intermiſſion; the Sweating is either too ſparing or too profuſe. When the Fit is off, ſeveral unuſual Symptoms may appear,

appear, as a Looſeneſs, a Bleeding at the Noſe, Sickneſs at the Stomach, a violent Heart-burn, Pains in the Belly, or the Gripes. Theſe Sort of Agues are generally EPIDEMIC, and moſt commonly appear in the Summer and Autumn.

Sometime a *Tertian Ague* is DOUBLE, which may be diſtinguiſhed from a *Quotidian*, by the Time of the Fits, which is not the ſame every Day, but every other Day.

There is ſometimes a CONTINUAL TERTIAN, which begins with Shivering and Shaking, an Anxiety, Vomiting, Loſs of Strength, and then a violent Heat. The Fits do not intermit, but only remit. The Pulſe continues frequent with Heat and Debility, and all the Symptoms return with freſh Vigour every other Day; but at length admit a perfect Intermiſſion.

An ENDEMIC TERTIAN is proper to certain Places; as a low Situation, and full of Marſhes, producing a great Number of Gnats and other Inſects, like ſome Parts of *Kent*, and the Hundreds of *Eſſex*. In ſuch Places the Natives themſelves have a Spice of it every Year, and Strangers ſeldom or never eſcape, without a Preſervative, which is only the Bark infuſed in Brandy, with a little Snake-Root, of which two Ounces Night and Morning are to be taken. This kept me in Health for a whole Year, in the Hundreds of *Eſſex*, and not only preſerved me from the Endemic Ague, but from a dangerous malignant Fever which then raged in thoſe Parts.

A QUARTAN AGUE has two Fits in four Days, or two Days quite free from a Fit.

It begins about Four or Five in the Afternoon, ſometimes ſooner and ſometimes later, with a great Laſſitude, Stretching, a blunt Pain in the Head, Back, Loins and Legs; the Feet and Hands are cold, the whole Body is pale; the Face and Nails livid, to which Shivering and Shaking ſupervene. The Tongue and the Lips tremble, the Breathing is difficult, with Reſtleſſneſs and Toſſing; the Pulſe is contracted and hard, and ſometimes unequal; and there is an Anxiety about the *Præcordia*. Theſe Symptoms continue about two or three Hours; in ſome the Body is coſtive, in others there is a *Stimulus* to Stool and to make Water. In ſome there is a *Nauſea* or Vomiting, with Stools. Some, advanced in Years, have their Minds pretty much diſturbed; the Heat comes on gradually, not burning but dry; the Pulſe becomes equal, quick, and large, but the dull Pain in the Head remains, with a *vertiginous Affection*; the Skin becomes only a little moiſt, and in about four or ſix Hours the Symptoms vaniſh, except a dull Pain in the Bones, Joints and Feet. The Urine in the

Fit

Fit is ſometimes thin and watry, ſometimes thick and with a Sediment.

Sometimes a *Quartan Ague* is DOUBLE, that is, when the Fits come on every other Day at different Hours; and it is SPURIOUS when a Paroxyſm begins at any other Time of the Day but that abovementioned. It is ſaid to be CONTINUAL, when on the intercalary Days there are Shiverings and Pandiculations, with a greater Heat than uſual, a quicker Pulſe, a Want of Appetite, a Debility, a Dryneſs of the Mouth, a Lightneſs of the Head, a diſturbed Sleep, and a reddiſh Urine, with a thick roſe-coloured Sediment.

A QUOTIDIAN AGUE or *Fever* returns every Day, and is not ſo common as the *Tertian* or *Quartan*.

The Acceſſion of this Fever is about four or five in the Morning, with Cold and Shivering; to which ſucceeds a *cardialgic Nauſea*, and Inflation of the Belly; in ſome a Pain in the Head, in others fainting Fits, in moſt Vomiting or Stools, or both. Then comes on a moderate Heat, with Thirſt, but not very intenſe. The Pulſe, which was before irregular and weak, becomes more quick, but not very hard. The Urine is not of a Flame, but rather of a Citron Colour, and turbid. Some are exceeding ſleepy. At length a moderate Sweat ſupervenes; and in about ten Hours, or longer, the Fit goes off, leaving the Body dull and heavy.

When the Diſeaſe varies from this Type, it is called *ſpurious* or *anomalous*.

From theſe Symptoms it appears, that the whole nervous Syſtem is exagitated, and ſuffers greatly by ſpaſtic Conſtrictions, which proceeding chiefly from the *Medulla Spinalis*, affect preternaturally not only the Coats of the Veſſels, but all the Fibres throughout the Body, thereby greatly diſturbing the Motion both of the Solids and Fluids.

The *material Cauſe* of this, and all other Fevers, is a Fluid of an active Nature endued with a *cauſtic Acrimony*, which ſollicits the internal and exquiſitely ſenſible Parts to *ſpaſtic Contractions*. It is generated chiefly in the *biliary Ducts* and Flexures of the *Duodenum*, where the vitiated, bilious, ſalival, and pancreatic Juices meeting with the Crudities of a bad Digeſtion, ferment together, and not being timely expelled, become virulent. This Matter paſſing through the Lacteals into the Blood, and thence into the nervous Parts of the Head, *Medulla Spinalis*, Inteſtines, and Stomach, as alſo into the nervous Coats of the *excretory* and *ſecretory Ducts*, excites an univerſal Spaſm, which firſt forces the Blood to the interior and greater Veſſels; and afterwards the *ſyſtaltic Motion* of the Heart and Arteries being

increaſed, the Motion of the whole Maſs of Blood and Humours is accelerated, and the Obſtructions of the ſmall Veſſels of the nervous Parts are opened; upon which the *Spaſm ceaſing*, the excretory Ducts are relaxed, the febrile Matter paſſes off through the Pores of the Skin by Perſpiration or Sweat, and the Fit ceaſes, till by the Generation of freſh Matter a new Paroxyſm is brought on. HOFF.

It appears from the Experiment of *Langriſh*, that the Blood in *Quotidians* is more denſe and tenacious than in *Tertians*; in *Tertians* than in *Quartans*; ſo that in *Quotidians*, *cæteris paribus*, it comes neareſt to an *inflammatory State*; and it is commonly obſerved, that if the Fever, from a *regular Tertian*, runs into a *Semitertian* or *Quotidian*, or greatly anticipates the Time of the *regular Paroxyſm*, a remitting or continual Fever is forthwith the Conſequence.

It is neceſſary to be known, that from *February* to *Auguſt*, Agues are ſaid to be *Vernal*; and from *Auguſt* to *February*, *Autumnal*; and that in the Beginning of Autumn they often reſemble continual Fevers, and require a different Manner of Cure.

No Fever emaciates a Patient ſooner than a *Tertian*, if attended with a more intenſe and laſting Heat. The *Autumnal* and *Winter Agues* are obſtinate and hard to cure, eſpecially if there is any Fault in the *Viſcera*: On the contrary, the *Vernal* and *Summer Agues*, if rightly treated, are eaſily vanquiſhed.

Agues, injudiciouſly managed, terminate in cruel and incurable Diſeaſes, as a *ſlow* or *hectic Fever*, a ſudden *Swelling of the Feet*, a Dropſy, œdematous Tumours, the Jaundice, ſcorbutic Cachexy, the dry Aſthma, the hypochondriac Paſſion; and in Infants a fatal Epilepſy. *Sydenham* obſerves, that a Swelling of the *Abdomen* in Children, and of the Legs in Adults, denotes a Solution of the Diſeaſe; and that a Pain in the *Tonſils*, Hoarſeneſs, hollow Eyes, and a ghaſtly Countenance, portend Death.

As to the *Cure*, when a Load of *vitiated Humours* in the Stomach and *Duodenum* require Depletion, which is known from having indulged in too plentiful Eating, from an Anxiety of the *Præcordia*, from Eructations, and a bitter Taſte in the Mouth, a Vomit, after the firſt Fit, in the Time of Intermiſſion, is to be given. In tender Conſtitutions, *gr.* x. of *Ipecacuanha* may be given alone, or ℥j. of the *Vin. Ipecac.* but to the more robuſt, a Grain or two of *emetic Tartar* may be added. Or if it is neceſſary to purge at the ſame Time,

℞. *Sal. Ebſhamenſ.* ℥ſs. *Tartar. emetic. gr.* ij. *vel* iij. *M. f. Pulvis diſſolvendus in* ℔j. *Aquæ puræ tepidæ, & duabus a finito Paroxyſmo horis ſumendus.*

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The Evacuation ought to be facilitated with Draughts of Water-gruel made fat with freſh Butter. Then take the following *Electuary*, which will cruſh the Diſeaſe in the Bud.

2. ℞. *Rob. Sambuc.* ℥j. *Cort. Peruv.* ʒv. *Pulv. Flor. Chamæmel. vulg.* ʒij. *Extract. Centaur. min. Pulv. Caryophyl. an.* ʒſs. *Syr. Limon. q. ſ. M. f. Electuarium. Aliquando addi poteſt, Calc. Antimon.* ʒſs. *ad Diaphoreſim promovendam, Doſis* ʒſs. *ſingulis binis horis, finito Paroxyſmo.*

Or, if a liquid Form is more agreeable,

3. ℞. *Cort. Peruv.* ℥j. *Cort. Eleuther. Cinnamon. Sal. Tartar. an.* ʒj. *Aq. Menth. vulg. ſimp. Vin. rub. an.* ℔j. *Digerantur leni calore. Colatur. adde Syr. Cort. Aurant.* ℥ſs. *M. Doſis* ℥ſs. *omni bihorio. Vel Cort. Peruv.* ℥j. *Aq. Vitæ* ℥viij. *Digerantur in vaſe clauſo per triduum, identidem agitando. Tinctura a Pulvere per inclinationem ſecernatur. Doſis ad Cochleare unum in hauſtu Vini generoſi, ſæpius in die iteranda.*

But if any thing forbids *Vomiting*, and yet there is Plenty of ſerous, crude Humours which require Evacuation, we muſt begin the Cure with deterſive and aperient Salts.

4. ℞. *Sal. Ebſhamenſ.* ℥ſs. *Sal. Ammoniac. Ocul. Cancr. an.* ʒij. *Nitr. purificat.* ʒj. *M. f. Pulvis, capiat.* ʒj. *omni bihorio, in unciis aliquot Aquæ puræ vel Menthæ vulgaris; ſuperbibendo ſemper vaſculum infuſi Theæ.*

When the whole inteſtinal Canal has been cleanſed by theſe Salts, duly repeated at proper Intervals, and the Ague ſtill continues, add an equal Weight of Bark thereto, or give the Electuary above preſcribed.

When the Patient is obnoxious to the hypochondriac Paſſion, the Stomach inflated, and the Body coſtive, neither *Vomits* nor *Salts* muſt be ventured upon, but carminative and emollient Clyſters; or,

5. ℞. *Mannæ elect.* ℥ij. *Sal. diuret.* ℈ij. *Ol. Junip. gut.* iij. *M. capiat. ex Liquore quodam appropriato.*

But it muſt be remembered, that neither Bleeding, nor Emetics, nor Cathartics, nor the Bark, nor any Strengthener nor Aſtringent is to be adminiſtred or given in the Fit, or near the Time it uſually comes on.

If a *Tertian* is autumnal, obſtinate, or changes to a *Quotidian*, the *antefebrile Potion* of *Crollius* will be proper.

6. *Sal. Abſynth.* ʒj. *Spir. Sulph.* ℈j. *Aq. Fœnicul.* ℥iiij. *M. f. Potio.*

Let the Patient take it juſt as the Fit comes on, and be well covered with Bed-cloaths.

Bleeding is proper only in a *hot Seaſon*, when the Heat of the Patient is exceſſive, attended with a *Delirium*, and in the Prime of Life, full of Blood, and ſubject to Paſſion.

Opiates will appeaſe the Symptoms, but they diſturb the *Criſis* and protract the Diſeaſe. Likewiſe *aluminous*, *Chalybeate* and *vitriolic Remedies* will ſtop the Fits; and if they are given to Patients of the loweſt Claſs, Care muſt be taken that they ſweat after them, by drinking hot Decoctions, or by Exerciſe: Of this Kind is the following from *Boerhaave*, but well corrected by an Aromatic:

7. ℞. *Alumin. rup.* ʒj. *Nuc. Moſchat.* ʒij. *Pulv. Bol. Armen. gr.* xij. *Horâ unâ ante Paroxyſmum hauriendus.*

Abſorbents have often a happy Effect in theſe Diſeaſes, but if given in too great a Quantity, they will not diſſolve in the Stomach. *Harris* adviſes ℈ij. of the ſimple Powder of *Crabs Claws*, two Hours before the Fit, and to be repeated in an Hour, in Mint-water; no Small-beer is to be drank for eight Hours after. It may be repeated in the ſame Manner againſt the next Time the Fit is expected: as likewiſe a third Time.

Sydenham, when the Patient is troubled with almoſt a *continual Vomiting*, directs the following ſaline Mixture, which may be taken ſix or eight Times in the Space of two Hours, if required.

8. ℞. *Succ. Limon. recent. expreſſ. Cochl.* j. *Sal. Abſinth.* ℈j. *M. f. Potiuncula.* This may be taken in the Fit.

It likewiſe has a Tendency to cure the Ague, for ſome have given it in a ſomewhat larger Doſe for that Purpoſe, with an Ounce or two of ſome diſtilled Water.

Langriſh aſſerts, that in long continual Agues or intermitting Fevers, which have baffled the *Bark* and many other Medicines, he has met with more Advantage from Rhubarb and Calomel exhibited in ſmall Doſes, than from any thing elſe he had tried.

In *obſtinate Quartans*, *Hoffman* greatly recommends the following:

9. ℞. *Cort. Peruv.* ʒiij. *Reg. Antimon. Medicin.* ʒij. *Mercur. dulc. (qui non terendus cum pulvere propter Salia, ſed cuſpide tantum cultelli miſcendus) Croci Mart. tenuiſſim. Nitr. Vitriolat. an.* ʒj. *Olei Menth. gut* iv. *M. f. Pulvis cujus* ʒſs. *vel* ʒj. *cum Rob. Sambuc. & Syr. Caryophyl. in forma Boli manè & veſperi poterit aſſumi, cum Regimine.*

This

This Method is confirmed by *Huxham*, who ſays, the *Bark* frequently proves ineffectual, without the Help of proper *Alexipharmacs*, as, *Rad. Serpentar. Virgin. Contrayerv. Myrrh. Camphire, &c.* After four or five Paroxyſms, warm Chalybeates may be added with very great Succeſs.

10. ℞. *Cort. Peruv.* ℥ij. *Limatur. Chalyb.* ʒvj. *Serpent. Virginian.* ℥ſs. *Conſerv. Cort. Aurant.* ℥ij. *Syr. Cort. Aurant. q. ſ. M. f. Electuarium. Capiat. Quant. Nuc. Moſchat. ter quaterve in die.*

But when the Patient has a *yellow Caſt of Countenance*, a *tenſe Abdomen*, and a very coſtive Habit of Body, *mercurial, ſaponaceous Deobſtruents*, with *Rhubarb*, *Aloetics*, or *Sal. Diureticus*, ſhould be premiſed to or joined with the Bark.

11. ℞. *Sapon. Hiſpan.* ℥ij. *Pareir. Brav.* ℥j. *Rhabarb. Aloes ſuccotrin. an.* ʒiij. *Syr. Cort. Aurant. q. ſ. M. f. Electuarium cap.* ʒſs. *ter in die.*]

Mead affirms, he has ſometimes found it neceſſary to add ſo much *Rhubarb* to the Bark as will procure two Stools a Day, yet not to give above one or two Drams at moſt.

But the following Powder will anſwer the Purpoſe better, and hath cured a great Number of Agues without any other Medicine:

12. ℞. *Cort. Peruv.* ℈iv. *Flor. Sal. Ammoniac.* ʒſs. *Reſin. Jalap. gr.* viij. *M. f. Pulvis.*

This is for two Doſes, one of which is to be taken twelve Hours before the Fit, in a large Diſh of Tea, and the other two Hours before it. After the Fit, the Patient muſt drink plentifully of the Infuſion of Tea. This ſingle Remedy anſwers every Intention of Cure, and its Efficacy in all Sorts of Agues, is ſufficiently confirmed by Experience.

Sydenham, in *Vernal Intermittents*, gives *Snake-Root*, thus,

13. ℞ *Serpentar. Virgin. ſubtiliſſim. pulveriſat. gr.* xv. *Vin. alb.* ℥iij. *M.*

This is to be taken two Hours before the Fit, and the Patient is to ſweat, well covered in Bed, two or three Hours after it. This may be repeated two or three Times in the ſame Manner.

Hoffman obſerves, that *obſtinate Quartans* in Children are not to be cured but by Purging, therefore he directs the following:

14. ℞. *Crem. Tartar.* ʒj. *Calc. Antimon. gr.* xij. *Diagryd. Sulphurat. gr.* vi. *M. f. Pulvis pro* iij. *Doſibus.*

One Doſe is to be given ſix Hours before the Fit; another before the ſecond Fit, and a third before the Third: Then the following *Infuſion.*

15. ℞. *Cort. Peruv.* ℥ſs. *Cort. Eleuther. Sal. Diuret. Sal. Tartar. an* ℥j. *Aq. Fœnicul.* ℥viij. *M. f. Infuſio. Colatur. adde Syr. Caryophyl.* ℥ſs. *Capiat. Coch.* j. *omni bihorio.*

If this fails, it is a Sign it proceeds from an Infarction of the *Viſcera*, and an Obſtruction of the Glands of the *Abdomen*; to remove which, give the following Saline Liquor often in ſmall Doſes.

16. ℞. *Sal. Tart. Nitr. Sal. Ammon. Nit. Vitriolat. an.* ʒij. *Extract. Croc. gr.* x. *Aq. Fontan.* ℔j. *M.*

By this Method the Fits will grow milder and ſhorter, and then the *Bark* given in Clyſters two or three Times between the Fits, will be moſt convenient, as alſo for other Perſons who cannot take the Bark any other Way.

17. ℞. *Cort. Peruv.* ℥ij. *coq. in Aq. Fontan. ad* ℔ſs. *Colatur. turbid. add. Electuar. e Scord.* ℥ſs. *Ol. Aniſ. gut.* j. *M. f. Clyſter.*

If this cannot be retained long enough, add to the Bark while it is boiling ʒſs. of *Pomegranate-peel*, and to the *Colature* ℥ij. of ſimple *Cinnamon-Water.*

Morton recommends the following *Fibrifuge* as very efficacious:

18. ℞. *Flor. Chamæmel. ſubtiliſſimè pulv.* ℈j. *Calc. Antimon. Sal. Abyſynth. an* ℈ſs. *M.*

This may be taken every ſixth Hour, or oftener, in any convenient Vehicle; or may be made into a *Bolus* with *Syr. Caryophyl.* or into Pills with Mucilage of *Gum Tragacanth.* It is an excellent Medicine.

19. Dr. *Berryat*, a *French* Phyſician, avers, that he has found Dr. *Sydenham*'s *Liquid Laudanum* more infallible in the Cure of Intermittent Fevers, than even the Bark itſelf; a ſingle Doſe for the moſt Part ſufficing. He gives it an Hour before the cold Fit is expected, to the Patient in Bed, in a Cup of the Infuſion of the leſſer Centaury. To Infants, five Drops; to Children, ten; to Adults, from twenty to twenty-five, or even thirty Drops, if the Fits have been violent.

Some adviſe *Pericarpia*; *Morton* has the following:

20. ℞. *Terebinth. Venet. Pulv. Oliban. an. q. ſ. C.* Spread it upon Leather a little before the Fit.

The next is *Boerhaave*'s.

21. ℞. *Summitat. Rutæ virid.* ℥ij. *Sem. Sinap.* ʒij. *contuſa applica ad Pericarpia.*

The

The following Pericarpium hath been looked upon as a great Secret, and was procured from a Woman who got a great deal of Money by curing Agues with it.

22. ℞. *Thuris in Lachry. pulveriſ.* ʒij. *Croc. gr.* x. *Sal. communi.* ʒſs. *Fuligin.* ʒx. *Vitell. Ov. recent. Num.* j. *M. f. Emplaſtrum, Carpis applicandum, ante acceſſionem, nec removendum priuſquam finierit febris.*

The following *Febrifuge* Plaiſter for Children, from *Allen*, may be laid to the Pit of the Stomach,

23. ℞. *Thur. ſubtiliſſ. Pulv.* ʒv. *Minii* ʒj. *Ol. Olivar. q. ſ. M. f. Emplaſtrum.*

To prevent the Return of an Ague, the Bark muſt be repeated every Week or ten Days, for three ſeveral Times, with the ſame Intervals. Likewiſe Bitters and Chalybeates are very ſerviceable for the ſame Purpoſe, or together, thus,

24. ℞. *Vin. Chalyb.* ℔ ij. *Vin. Amar.* ℥ viij. *M.* The Doſe is two, three, or four Spoonfuls twice in a Day.

Monro refers *Intermittent Fevers* or *Agues* to the ſame Tribe of Diſeaſes as the Remitting Fever.

We call it, ſays he, an *Intermittent Fever*, when the Paroxyſms are diſtinct, begin with a cold, followed by a hot Fit, and go off with a Sweat; and the Patient is cool and free from the Fever in the Interval between the Fits.

Many, continues he, have been the Cauſes alledged to produce this Diſorder. The great Quantity of Bile that is often thrown up in the Fit, has cauſed it to be ranked among the bilious Diſeaſes; and the Seaſons of the Year in which it is moſt frequent, and the low moiſt Situations of the Places where it is endemic, have led to ſuſpect, that an obſtructed Perſpiration, and a Tendency in the Juices to Putreſcence, are the Cauſe of it.

But whatever Cauſe we may ſuppoſe to give Riſe to the firſt Fit, it is difficult from hence to account for the regular Returns of the Paroxyſms and Intermiſſions. For my own Part, after conſidering Intermittents, which obſerved a regular Type in the Courſe of a Salivation; their being ſo eaſily ſtopped by the Bark without any ſenſible Evacuation; their being ſometimes put away by a Stimulus externally applied, as a Poultice of raw Garlic to the Wriſts, or by a Fright, or ſudden Plunge into cold Water; their returning after ſlight Errors in Diet, and ſometimes by the Operation of a Purge, or of Bleeding; their attacking ſometimes only particular Parts, and many ſuch anomalous Accidents in theſe Fevers; I muſt confeſs that I

am unable to form any Idea, either of their Origin, Seat, or Cauſe.

In general there is a Prejudice againſt Bleeding in Agues, after they become regular; but I have always obſerved, that where Patients are ſtrong and plethoric, and the Fever in the Paroxyſms riſes high, or the Pulſe remains quick in the Intervals, that taking away more or leſs Blood, and giving antiphlogiſtic Medicines in the Beginning, eaſed the Patient, moderated the Fever, and made it ſafer to give the Bark ſoon; and I never ſaw the leaſt Inconvenience in the Practice; but, on the contrary, have obſerved ſeveral intermittent Fevers change into continual ones from the Neglect of this Evacuation; nay, I have ſeen Caſes where the Bark, inſtead of ſtopping the Ague, rather increaſed the Fever, till the Patient was blooded, and had purſued the antiphlogiſtic Method for ſome Time; after which the Bark had its proper Effect, and put an End to the Diſorder.

As ſoon as Agues become regular, and the Patient is quite cool, and free from any Fever in the Intervals, give the Bark; which ſoon puts a Stop to the Paroxyſms, without the leaſt bad Conſequences: But before giving the Bark take Care to empty the firſt Paſſages by Emetics and Purgatives, where there is no Symptom to forbid their Uſe. Where the Patient is weak, and the Fit ſo violent, as to make it neceſſary to ſtop the Ague, before there is Time to adminiſter Emetics and Purges, add ſo much Rhubarb to the firſt Doſe of the Bark, as to procure ſome looſe Stools, which will not prevent its ſtopping the Ague, at the ſame Time that it anſwers the Uſe propoſed, of carrying off any putrid Humours that may be lodged in the Inteſtines.

In *England*, Vernal, Quotidian, and Tertian Agues frequently go off by Bleeding, and taking the ſaline Draughts and cooling Medicines for ſome Time, without the Uſe of the Bark; but in *Germany* very few yielded to this Treatment, and we were obliged to give the Bark before we could put a Stop to them.

Sometimes, when Patients have been reduced low by Agues, the Stomach becomes ſo ſqueamiſh as to reject the Bark in every Shape it can be given: In ſuch Caſes, when the Ague cannot be ſtopped by other Means, it may be adminiſtred with great Advantages in Clyſters: Children have been cured by Bark Clyſters, after the Bark Waiſtcoats, and other Means uſed had proved unſucceſsful.

When Agues were attended with a Dyſentery, and the Purging and Gripes were moſt ſevere on the Days of the aguiſh Paroxyſms, I was obliged at firſt to neglect the Ague, and to treat the

the Diſorder entirely as a Flux. If there was much Fever, the Patient ſtrong, and the Pains in the Bowels acute, I ordered Bleeding, and then a gentle Emetic, and ſome Doſes of Rhubarb, or the following:

℞. *Mann. opt.* ℥ ß. *Ol. Oliv.* ʒvi. *Vitell. ov. q. ſ. tere in Mortario, addendo paulatim Sal. cathart. amar.* ℥j. *ſolut. in Aq. Font. calid.* ℥iij. *Sp. Vin. Gall.* ʒiij. *M. pro Doſi matutino.*

I directed a gentle Opiate in the Evening, and other Medicines proper in a Dyſentery, till its Violence was abated, before I gave the Bark; yet, in ſome Caſes, where the aguiſh Paroxyſms were very ſevere, and helped to increaſe the Purging, and the Patient was in Danger of Sinking, I gave the Bark, though the Flux ſtill continued, and the Method followed, was to give the Bark, mixed with *Diaſcord.* and Opiates, in the Intervals between the Purges.

By this Treatment both Fluxes and Agues were carried off. But where the mentioned Cautions were neglected, the Bark generally made the Patients worſe, and was obliged to be omitted till the Violence of the Purging was over.

In Agues accompanied with a ſlight Jaundice in the Beginning, for the moſt Part, the Pulſe continues rather quick in the Intervals between the Paroxyſms, and the Patients complain of Sickneſs for the firſt two or three Days. With ſuch the Bark always diſagrees, till the Feveriſhneſs between the aguiſh Paroxyſms is gone; and I have found, that the beſt Way of treating them, is to bleed in the Beginning, if there is much Fever, and then to give a Vomit and a Purge, and to repeat them, if neceſſary; and where there is no Purging, to give the Saline Draughts, and other cooling Medicines; and to add a few Grains of Rhubarb, or to give ſo much of the *Pil. Saponac. c. Rheo* daily, as to procure one or two looſe Stools.

After the Ague has regular Intermiſſions, and the Patient is quite cool, and free from Fever in the Intervals, if the Diſorder does not yield to the above Treatment, as indeed it ſeldom does, then I give the Bark freely; even though the ſlight icteric Symptoms ſtill remain; and it will put an End to the Ague, and remove the Jaundice at the ſame Time, without the leaſt Inconvenience to the Patient. In ſuch Caſes I have generally added a few Grains of Rhubarb to the firſt Doſes of the Bark; or gave the Bark made up into Pills with Soap, adding occaſionally a few Grains of Rhubarb.

Icteric Symptoms with the Ague are often accompanied with bilious Vomitings in the Time of the cold Fit: The Patient is ſick,

ſick, with a bitter Taſte in the Mouth, before the Approach of the Paroxyſm; yet, though they take Emetics, which operate freely at this Time, they ſeldom bring up Bile; the Sickneſs and bitter Taſte, however, continue till the cold Fit comes on, and then then they vomit Bile in large Quantities. In ſuch Caſes, after Emetics and Purges, the Ague being brought to regular Paroxyſms, with free Intermiſſions, the Bark adminiſtred as before, removes the Ague and icteric Symptoms, without the leaſt bad Conſequences.

Many Practitioners of great Repute have been prejudiced againſt the Bark; alledging, that the free Uſe of this Medicine often lays the Foundation of Obſtructions in the abdominal Viſcera, eſpecially when it has been given where there was an icteritious Colour in the Eyes and Countenance; and that in ſuch Caſes we ought not to give the Bark till theſe icteric Symptoms are gone. At firſt I was very cautious of giving it under ſuch Circumſtances; till meeting with ſome Caſes where the Paroxyſms were ſevere, and became more frequent, while the Patient was ſo low as to be in Danger of ſinking under the Diſorder, I gave the Bark freely, as the only Remedy capable of preſerving Life; which not only ſtopped the Ague, but carried off the icteritious Smptoms, and reſtored the Patient to perfect Health. *Cleghorn* ſays, "Where there is an icteritious "Colour of the Eyes, we are told that the Cortex ſhould not be "adminiſtred; though, in my Opinion, it is far the moſt dan-"gerous Part to delay it, after the firſt Appearance of that "Symptom."

I have, ever ſince, given it freely, in the Manner above-mentioned, with great Succeſs, and never ſaw any Miſchief from uſing it: Indeed ſometimes, where it was given rather too ſoon, it did not ſet eaſy on the Stomach, and made the Patients hot and reſtleſs; but by laying it aſide, theſe Effects immediately ceaſed; and generally, after a little Time, the Paroxyſms became milder and more diſtinct, when the Bark was again adminiſtred, agreed with the Stomach, and put an End to the Diſorder: And I am now convinced from Experience, that the Caſes in which the Bark has done Miſchief, or given Riſe to Obſtructions of the abdominal Viſcera, are but very rare; and that theſe Miſchiefs moſtly ariſe from the Obſtinacy of the Diſorder, and not from the Uſe of this Drug; for I have oftener obſerved Obſtructions where little or no Bark had been uſed, than where it was given freely.

What, probably, has given Riſe to the Belief of the Bark's doing ſo much Miſchief, is, that in *Holland*, and other low fenny Countries, where Agues are endemic, they are oftentimes extremely

tremely obſtinate, and yield hardly to any Remedies; and if they are ſtopped by the Bark, they often return ſoon after, and, by their long Continuance, occaſion Obſtructions of the abdominal Viſcera, which have been attributed to the Uſe of this Specific.

In ſome few Caſes, a Purging has accompanied theſe icteric Symptoms, which was treated much in the ſame Manner as when the Ague is accompanied with a Flux; I gave Emetics and Purgatives, and the *Mindereri* Draughts, with Mithridate, throughout the Day, and Opiates at Night, if the Purging was violent: If it continued, accompanied with regular aguiſh Fits, the Bark, with Aſtringents, generally removed both.

Whenever the Bark had no Effect, and its Uſe perſiſted in ſeeming rather to exaſperate the Paroxyſms, and to do hurt, and no Remedy I tried had a better Effect; I gave the following Medicines to divers Patients; the ſaline Draughts and cooling Medicines; Infuſions of Camomile Flowers, and of other Bitters; Dr. *Morton*'s Powders of Camomile Flowers, Salt of Wormwood, Myrrh and Alum; Alum and Nutmeg; large Doſes of Sal Ammoniac; large Quantities of Spirits of Hartſhorn; the Antimonial Drops and Powders; to ſome I gave Emetics, both in the Intervals, and immediately before the Fits; in ſome I tried to promote Sweats before the Approach of the Fits, by making them drink freely of warm Liquors while they kept in Bed, and took diaphoretic Medicines; and to others I applied Bliſters.—But all did not put a Stop to ſome of theſe Agues. Some became Chachectic, and died of Dropſies or Diarrhœas; ſome, from Obſtructions of the Liver, Spleen, *&c.* fell into Jaundices and Dropſies, which carried them off. The opened Bodies exhibited Indurations of thoſe Viſcera, Suppurations of the Liver, and what they call the Ague-Cake, which is an extravagant Enlargement of the Spleen. Others fell into Conſumptions, and one died in the cold Fit *.

Patients will ſometimes be afflicted with periodical Head-achs, returning, in moſt, every Day, but in ſome only every ſecond. Thoſe Head-achs uſually begin in the Forenoon, and are very violent while they laſt, confining them to their Beds for ſome Hours: In the Intervals they are quite cool, and free from Fever. Sometimes, though not always, the Urine depoſits a

* The cold Fit is the moſt dangerous Time of the Paroxyſm, and the greateſt Part of thoſe who die of Agues die at this Time.—*Van Swieten* ſays, he has ſeen the Trembling and Shaking ſo great in the Time of the cold Fit of Quartans, that the Teeth have dropped out of the Head.

little

little Settlement as the Fit goes off. Commonly the Pain is all over the Head, but moſt ſevere in the Forehead; though ſometimes it is confined to one Side only.

Theſe Head-achs I treat entirely as Agues of the ſame Type. If the Patient be ſtrong, Blood is taken away; then an Emetic and Purge preſcribed; and laſtly, the Bark liberally, which generally puts an End to the Complaint, without any bad Conſequences attending.

Of the Catarrhal Fever, *or the* Continual Quotidian *of the Ancients.*

IT generally begins in the Evening with a *Shivering* and a *Coldneſs* of the extreme Parts, eſpecially of the Feet, and Soles of the Feet; a Coſtiveneſs, a frequent Deſire of making Water, but the Urine is ſmall in Quantity; a Weakneſs of the Head, an univerſal *Languor* of the whole Body; a falſe Appetite, Thirſt, Difficulty of Swallowing, a *Stimulus* in the *Larynx*, a Heat in the Noſtrils and *Fauces*, attended with Sneezing; a Weight in the Breaſt. Towards Night Heat, and a quicker, fuller Pulſe, with a Defluxion of Rheum, a Heat in the *Fauces*, unquiet Sleep, a Sweating in the Morning, a Heavineſs and Dulneſs of the whole Body, and a Loſs of Appetite.

The immediate Cauſe of this Diſorder is a ſharp, acrid *Serum* or *Lympha*, ſubſiſting in the glandulous Tunics and irritating them, with Pain, Tumor, and Redneſs. This happens in the whole Region of the Noſtrils, Palate, and *Fauces*; as alſo in the *Aſpera Arteria* with the bronchial Branches: And farther in the *Oeſophagus*, Stomach, and Inteſtines. Hence a Hoarſeneſs, a Cough, a Hawking up of viſcid Matter, a Sneezing, a Defluxion of the Lungs. Likewiſe a *Nauſea*, ſometimes a Vomiting; a Heat about the *Præcordia*; a Griping of the Guts, followed with a ſalutary Flux.

It more frequently attacks Women and Children than Men, and thoſe that indulge themſelves in ſtrong Liquors. It ſometimes happens from the drying up of a ſcald Head and other Eruptions. Sometimes it is epidemical, and proceeds from a ſubtile cauſtic Matter in the Air. When it is attended with a ſudden Loſs of Strength it is of a malignant Nature.

This Diſeaſe is moſt frequent in the Spring and Autumn, in ſudden Changes of the Weather from hot to cold, from dry

to

to moiſt, and *vice verſa*; as alſo from Change of Air, if of different Qualities; from being expoſed to the cold Air of the Night, and from throwing off Winter-Garments too ſoon. Sometimes it is *epidemical* and *contagious*.

This Diſeaſe is not dangerous in itſelf, if rightly managed, and terminates in *ſeven* or *fourteen* Days at fartheſt; for the Laſſitude of the Body then diſappears: And the other Complaints, eſpecially the *Head-ach* and *Hemicrania*, are appeaſed, when the *Catarrh* appears, and there is a plentiful Diſcharge from the Noſtrils.

It often goes off, in ſome, in the Beginning, with an increaſed Perſpiration, or by Sweat; in others, after a few Days, by hawking up a large Quantity of viſcid Matter, or a plentiful Diſcharge of a *mucous Serum* by the Noſe; in others, by a Looſeneſs, when the Urine at the ſame Time, which before was thin and little, becomes copious and heavy, with twice the Quantity of Sediment as in a natural State.

The Intentions of Cure are three, 1. To ſheath the Acrimony of the *Lympha*. 2. To increaſe Perſpiration. 3. To promote the Expectoration of the viſcid *Mucus*.

The *ſaline Sharpneſs* of the *Lympha* may be taken off by the *abſorbent* and *diaphoretic Powders*, humecting and oleous Remedies, ſuch as Oil of Sweet Almonds, *Sperma-ceti*, Milk, Cream, Almond-Emulſions, with the Addition of white Poppy-Seeds, Barley-Broth, Water-Gruel, Chicken-Broth, with the Yolk of an Egg. As alſo Liquorice-Juice, Liquorice-Tea, dried Figs and Raiſins. If the Acrimony is very ſubtile and corroding, gentle Anodynes ſhould take place, ſuch as *Saffron*, *Diacodium*, and *Storax Pills*.

To promote a *Diaphoreſis*,

1. ℞. *Pulv. Contrayerv. com.* ℈j. *Serpent. Virgin. Croc. an. gr.* v. *M. f. Pulvis.* This may be repeated in four or ſix Hours Time if neceſſary.

To appeaſe the Cough,

2. ℞. *Ol. Olivar.* ℥iſs. *Aquæ Fontan.* ℥vj. *Spir. C. C. gut.* lx. *Syr. Pectoral.* ℥j. *M. Cap. Cochl.* iv. *quarta, quaque Horâ.* At Night give gr. vi. of the *Storax Pills*, unleſs the Head is weak, for then they muſt be avoided.

To *promote Perſpiration*, order Tea, with Leaves of *Veronica*, [Male Speedwell,] Hyſſop, Liquorice-Root, Elder-Flowers, wild Poppies, and Fennel-Seeds. As alſo the more fixed diaphoretic Powders, with antiſpaſmodic Waters; but eſpecially bodily Motion and Exerciſe.

To *promote the Excretion of the thick, viſcid Mucus*, Figs and Raiſins are proper, with Brandy burnt, and reduced almoſt into a Syrup. Likewiſe a pectoral Elixir, made of *Gum Ammoniac*, *Myrrh*, *Liquorice-Root*, *Elecampane-Root*, *Saffron*, *Benjamin*, and *Oil of Anniſeed*, whoſe Virtue may be heightened by the vinous Spirit of *Sal Ammoniac* or *Tincture of Tartar*. The ſtagnating *Mucus* of the Noſe may be diſſolved, by often holding to the Noſe the dry volatile *Sal Ammoniac*, mixed with a few Drops of genuine Oil of *Marjoram*.

The Regimen ſhould be temperate, and cooling Things as well as Acids ſhould be avoided; *Opiates* are not convenient, when the Head is weak and heavy, the Body coſtive, and the Age far advanced.

The *Aliment* ſhould be ſparing, the *Drink* warm and wholeſome; the beſt is a Decoction of Pearl-Barley and Shavings of Harts-horn; as alſo of Water-Gruel. Wine is not proper till the Decline of the Diſeaſe.

If the Heat is intenſe, and the Conſtitution bilious, a few Grains of *Nitre* may be added to the diaphoretic Powders, and the Emulſions may be taken more freely.

If the Body is *coſtive*, beſides Water-Gruel, Manna, Prunes, and Raiſins, nothing is better than an *emollient Clyſter*. Or the Patient may take at Night, going to Bed, half a Dram of the *Aromatic Pills*, with four Grains of *Storax Pills*, which will open the Body, and appeaſe the Cough.

In the Decline of the Diſeaſe, when the Cough is too moiſt, the Defluxion great and obſtinate, it will be proper to take a large Doſe of *Manna* to two or three Ounces in Fennel-Water, to carry the Humours downward. To which Purpoſe alſo, a Scruple or half a Dram of *Rufus*'s Pills may be given. *Cathartics* are hurtful in the Beginning.

When the Cough is very violent, it muſt be appeaſed with a Mixture of Oil of Sweet Almonds freſh drawn, and *French* Syrup of *Capillaire*, or the following *Electuary*:

℞. *Ol. Amygd. dul.* ℥iij. *Sperm. Cet.* ʒj. *Sacch. Cand. alb. Syr. Violar. an* ℥j. *Croc.* ℈j. *Ol. Aniſ. Macis, Rad. Saſſafras an. gut.* vj. *M. f. Electarium, de quo aliquid ſubinde deglutiendum.*

When Women labour under a Suppreſſion of the *Menſes*, the Body muſt be kept open with *Clyſters*; *Bezoardic Powders* muſt be given, and a Grain of *Saffron* added to each Doſe, or a few Grains of Flowers of *Sulphur*, but avoid ſweet Things and Expectorants.

When

When the *Fever* is vanquiſhed, and the Lungs continue in a lax State, which is known from too large a Spitting, to the *Bezoardic Powders* muſt be added a few Grains of *Cortex Eleutheriæ.*

Or give ſome Drops of the *Traumatic*, or general Balſam, three or four Times a Day.

When there is a *Plethora*, Bleeding will prevent a *Catarrh*; but when a Fever is preſent, it renders the Cure more difficult.

In a violent, obſtinate Cough, ſweet Pectorals, and incraſſating Remedies too plentifully given, bring on a *Cachexy*, or *Phthiſis*, by ſpoiling the Appetite, and hurting the Tone of the Lungs. HOFFMAN.

What we commonly call CATCHING COLD, may be cured by lying much in Bed; by drinking plentifully of warm *Sack-Whey*, with a few Drops of Spirits of *Harts-horn*, *Poſſet Drink*, *Water-Gruel*, or any other warm ſmall Liquor; a Scruple of the *Pulv. è Chelis Cancr. comp.* Morning and Night; livingupon *Spoon-meats*, *Pudding*, and *Chicken*, and drinking every thing warm: In a word, treat it at firſt as a ſmall Fever, with gentle Diaphoretics; and afterwards, if any *Cough* or *Spitting* ſhould remain, by ſoftening the Breaſt with a little *Sugar-Candy* and *Oil* of *Sweet-Almonds*, or a Solution of *Gum Ammoniac* in an Ounce of Barley-Water to make the Expectoration eaſy, and afterwards going into the Air *well-cloathed.*

This is a much more eaſy, natural, and effectual Method than the Practice by *Balſams*, *Linctus's*, *Pectorals*, and the like Trumpery in common Uſe, which ſerve only to ſpoil the Stomach, oppreſs the Spirits, and hurt the Conſtitution. CHEYNE.

Of the SEMITERTIAN FEVER.

THIS is an *epidemic Fever*, compounded of an *intermitting Tertian* and a *continual Quotidian.* It is called by the Greeks ἡμιτριταῖος.

It generally makes its Onſet before Noon, with Coldneſs, Shaking, and a contracted Pulſe; to which ſucceeds a frequent Pulſe, with Heat which continues ſome Hours, till a warm Sweat appears, without a complete Intermiſſion. The Heat, after a ſlight Chilneſs, increaſes towards Night, with a quick Pulſe, which is more moderate the next Day, without Thirſt, till the Evening, when a ſlight Shivering comes on, and the Symptoms return. On the third Day the Shaking Fit appears again with more intenſe Heat, and proceeds in the ſame Track

as

as before; ſo that the Fever is never quite off, but has an Exacerbation in the Evening: However, the Shaking Fit is moſt conſpicuous every third Day in the Morning.

Beſides the foregoing Symptoms, the Strength fails, the Appetite is languid, Sleep is wanting, the Urine is thin and crude; but after the Fit on the third Day it is thick and coloured, and a ſmall Quantity of crude Matter is brought up with Coughing. It is ſometimes attended with a Pain in the Back and the *Abdomen*, together with a Swelling in the latter. Some, at the Acceſs of the Fit of the *Tertian*, are affected with a *Nauſea* and *Cardialgia*. Some vomit, others faint, and others again are *delirious*.

Some have called it a *continual Tertian*, though improperly, for that grows worſe on the third Day, but not in the Evening of other Days; it likewiſe grows more moderate after the third Day, and turns to a true *intermitting Tertian*. Nor is it to be confounded with the double *Tertian*; for though it comes on every Day, the Times of the Fits correſpond with each other alternately, and the Fever perfectly intermits.

This Fever is generated by all Things that render the Humours thick and impure, eſpecially thoſe that fill the *Primæ Viæ*, and the Veſſels of the Meſentery, with Impurities. Thoſe are moſt liable to it who live upon ſweet, acid, and fermentable Aliment, that live an idle ſedentary Life, that drink leſs than they ought, or love ſweet Wines; as alſo thoſe that give way to Sadneſs and Melancholy. Thoſe are eaſily affected with this Diſeaſe who are coſtive after Recovery from a Diſeaſe, or often uſe draſtic Purges, or that have the bleeding Piles, or Menſes ſuppreſſed.

It *generally terminates* either on the ninth or thirteenth Day, in Health, or another Diſeaſe, or Death.

When it continues longer, it is attended with an Inflammation that turns to an Abſceſs, and the Diſeaſe changes to an *hectic* or *ſlow Fever*, or to a Dropſy, or, which is more rare, into a ſimple or double Intermittent.

It is a good Sign when a Sweat breaks out at the Decline of the *Paroxyſm*, and when, on the ſeventh Day, being critical, or, after it, the Belly is diſturbed, and is followed with a Flux of bilious, pituitous, or bloody Matter, for it foretells the Solution of the Diſeaſe; as alſo when the Pains in the Belly are very ſharp, and grow worſe at certain Hours, being followed with a *ſanious* and *purulent Diarrhœa*, or when Plenty of black Blood comes away.

It is a bad Sign, when nothing of this happens; but, on the other hand, a Heat about the *Præcordia*, a Tenſion and Pain

in

in the whole Region of the Stomach, a Vomiting and Hiccup, Inquietude, Toſſing and Trembling of the Hands, are very ominous, and ſhow that the Inflammation has reached the Stomach.

Thoſe that die of this Diſeaſe, depart at the Acceſſion of the Fit, which preſerves the Type of a *Tertian*, after the Inflammation has ſpread, and is converted into Putrefaction.

The Cure is to be performed, 1. By ſpeedily diſcuſſing the *Inflammatory Staſis* in the Coats of the Inteſtines and Meſentery, and preventing it from ſpreading farther; 2. By correcting and gently evacuating the Matter of the intermitting Fever, obſerving at the ſame Time the critical Motions.

The firſt End may be obtained by diaphoretic Powders, mixt with a little *Nitre*, in ſmall Doſes, but taken often.

1. ℞. *Ceruſs. Antim. Matris Perlar. Chel. Cancr. ppt. an.* ʒj. *Oculor. Cancr. Nitr. depurat. an.* ʒſs. *Capiat gr.* xv. *tertia quaque Hora ex Hauſt. Decoct. ſequent.*

2. ℞. *Rad. Scorzon.* ʒij. *Raſur. C. C. Paſſular. minor. an.* ʒj. *Rad. Cichor.* ʒſs. *Coque in* ℔viij. *Aq. per Horæ dimidium.*

To cleanſe the firſt Paſſages, and to carry off the morbid Matter, uſe a Solution of Manna with Cream of Tartar, Raiſins, and a little *Sal. Polychreſt.* Or,

3. ℞. *Mann. elect.* ʒiſs. *Rhubarb. Crem. Tart. an.* ʒj. *Sol. Polychreſt.* ℈ij. *Coque et ſolve leni Calore in Aq. Fontan.* ʒiv. *Colatur. add. Ol. Junip. gut.* iij. *M. F. Potio.*

Things of this Kind cleanſe the inteſtinal Canal, without raiſing a Commotion in the Blood, without ſtimulating the nervous Parts, and without ſinking the Spirits.

Purges in the Beginning are unſafe, becauſe the morbific Matter is not prepared, but if the Body is coſtive it may be opened with an emollient and ſaponaceous *Clyſter.*

4. ℞. *Decoct. Commun.* ʒviij. *Sapon. moll.* ʒſs. *M. f. Enema.*

All deterſive Salts are improper in this Diſeaſe, except *ſtibiated Nitre* and *Sal. Polychreſt.* for theſe have an aperient, diuretic, and laxative Virtue, and may be given to *gr.* xv. in a proper Vehicle. When this Fever is on the Decline, and Nature ſeems intent in carrying off the Diſeaſe by Stool, then the above Laxative will be proper.

Bleeding will be proper in the very Beginning of the Diſeaſe, if the Patient is plethoric, the Heat urgent, the Strength not much impaired, and when ſome critical *Hæmorrhage* is ſuppreſſed. *All heating Medicines are to be avoided*, as well as fixed

aſtringent earthy teſtaceous Powders, and alſo the Bark, unleſs there is a perfect Intermiſſion. For this laſt, as *Baglivi* obſerves, has brought on fatal Inflammations, *or ſlow hectic Fevers.*

When there is a violent Pain in the Belly, or a Looſeneſs, no Sedatives muſt be uſed; but Diaphoretics and ſpirituous ſtrengthening Liniments muſt be applied externally. The above Decoction may ſerve for common Drink. The Decoction of *Camomile Flowers* and the Tops of *Yarrow* are likewiſe very ſerviceable in this Diſeaſe, as they appeaſe *hyſteric Spaſms*, and have a ſingular tonic antefebrile Virtue. HOFFMAN.

Of the NERVOUS FEVER.

IN a *Nervous Fever* the Patients at firſt are ſubject to *ſlight tranſient Chillineſſes* often in a Day, with uncertain Fluſhings of Heat; they have a Liſtleſſneſs, Laſſitude, and Wearineſs; they are apt to ſigh and complain of a Heavineſs, Dejection, and Anxiety, with a Load, Pain, or Giddineſs of the Head, with an Inclination to yawn and doze, want Appetite, and diſreliſh every thing; they have a Dryneſs of the Lips and Tongue without any conſiderable Thirſt; they have frequent *Nauſeas* with reaching to vomit, but little is brought up; the Breathing is difficult by Intervals, and eſpecially towards Night there is an Exacerbation of the Symptoms, with a low, quick, unequal Pulſe; the Urine is pale, and made often and ſuddenly; a *Torpor*, or obtuſe Pain and Coldneſs often affect the hind Part of the Head, or a heavy Pain is felt along the coronary Suture. Theſe commonly precede ſome Degree of a *Delirium.*

The Countenance is heavy, pale, and dejected; ſometimes they are quite wakeful; and when they fall aſleep they are ſo inſenſible of it, that they diſown it. They may continue thus for five or ſix Days.

The *Pulſe* is very remarkable in this Diſeaſe, and requires the moſt diligent Attention, for it is generally *low*, *quick*, and *unequal*; the Inequality conſiſts in this, that a few Pulſations ſhall be more ſwift, frequent and large, ſometimes fluttering, and then preſently it returns to be low and quick.

Gilchriſt makes this State previous to the Fever, and ſays, that for a Fortnight or three Weeks before they are laid down, they ſhall be low-ſpirited, inappetent, loaded, ſleep ill, ſigh frequently,

frequently, groan involuntarily, and feel inexpreſſible Diſorder, accompanied with Fear, Concern, and Dejection, and perhaps ſlight Alienations of Mind.

The Urine has generally no Sediment, and, when it has, it is like Bran; it is ſometimes of a Whey Colour, or like dead ſmall Beer. The Dryneſs of the Tongue ſeldom appears at the Beginning, though it is then ſometimes covered with a thin, whitiſh *Mucus*; but at the State or Cloſe of the Diſeaſe, it often appears very dry, red, and chaped.

About the ſeventh or eighth Day, the Giddineſs, Pain, or Heavineſs of the Head become much greater, with a conſtant Noiſe in it, or *Tinnitus Aurium*, which is frequently the Forerunner of a *Delirium*.

The Load on the *Præcordia*, the Anxiety and Faintneſs, grow much more urgent, and the Patient often falls into an actual *Deliquium*, eſpecially if he attempts to ſit up. Now cold Sweats appear ſuddenly on the Forehead and Back of the Hands, while the Cheeks and Palms glow with Heat, and as ſuddenly go off. If the Urine grows more pale and limpid, a *Delirium* is certainly at hand, with univerſal Tremors and *Subſultus Tendinum*; the *Delirium* is generally little more than a Confuſion of Thought and Action, a continual muttering and faultering of Speech. Sometimes they awake in a Hurry and Confuſion, and preſently recollect themſelves, but forthwith fall into a muttering, then doze again.

At the *State*, the Tongue grows often dry, with a *yellow Liſt* on each Side, and when the Patient attempts to put it out, it trembles greatly. If at this Time *a copious Spitting* comes on, it is a very good Sign. When there is a Difficulty of Swallowing or continual Gulping, it is a dangerous Symptom, eſpecially with a Hiccup.

On the ninth, tenth, or twelfth Day, the Patient often falls into profuſe Sweats, which at the Extremities are commonly cold and clammy, and frequently there are thin Stools, which are generally both colliquative and very weakening. A warm Moiſture on the Skin is reckoned ſalutary; and a gentle Diarrhœa often carries off the *Delirium* and Sleepineſs.

When the *Extremities* grow cold, the Nails livid, the Pulſe exceeding weak and quick, inſomuch that it rather trembles and flutters than beats; or creeps ſurprizingly ſlow, with frequent Intermiſſions, then Nature ſinks apace, and the Patient becomes quite inſenſible and ſtupid; the *Delirium* turns to a profound *Coma*, which ſoon ends in Death; or the Stools, Urine and Tears run off involuntarily, as a Prelude to a ſpeedy Diſſolution; or there are vaſt Tremblings and Twitch-

ings of the Nerves and Tendons, which terminate in a general Convulsion, and this in a Cessation of all Motion. One or other of these Ways closes the Scene, after the Patient has languished fourteen eighteen, or twenty Days, nay, sometimes much longer.

All Persons grow deaf and stupid towards the End of the Disease, and if the Deafness ends in an Imposthume of the Ear, or when a *Parotis* suppurates, or a large pustular Eruption breaks out about the Lips and Nose, they are good Symptoms.

Gilchrist says, that Persons who are attacked with this Disease, have probably exposed themselves indiscreetly to the Sun, or have been fatigued in it, or have eaten largely of Fruit, or have drank bad Wine or Spirits, which bring on a terrible Parchedness or Stricture, or they have been long under continual Anxiety, Care, Fear, Discouragement, or other enervating Passions, together with Irregularities of Diet and Manner of Living, which cause a bad State of the Fluids, as well as a depressed State of Mind. To which *Mannigham* adds, Watchings, intense Thought and Study, taking Cold, undue and profuse Evacuations, or whatever vitiates or impoverishes the Blood.

Huxham observes, that it commonly attacks Persons of weak Nerves, a lax Habit of Body, poor and thin Blood, who have used vapid, impure Drinks, or have been long confined in damp, foul Air; that have broken the Vigour of their Constitutions by Salivations, frequent Purgings, immoderate Venery, *&c.* Whence he concludes, that the Disease arises from a too relaxed State of the Solids, a poor, weak Blood, with a *Lentor* and *Vapidity* of the lymphatic and nervous Juices.

Gilchrist formerly thought, from the Diseases he had then observed, that the Cause consisted in a *Lentor* chiefly; but he is now of Opinion they have plain Signs of *Acrimony*; and that Acrimony is a Cause sufficient to bring on a *Fever of this Kind*, by giving an universal *Stimulus*. A *general Constriction*, says he, from this Cause, will, by forcing the Blood inwards, occasion Coldness of the Extremities, Lowness, Faintness, Oppression, and an inward Struggle, the special Characteristics of the Fever, which it has in common with other Species, but in a more remarkable Degree. Nay, this Constriction and Acrimony may bring on a particular Stagnation or Obstruction, which by their Weight and Erosion may cause a Bursting of the Vessels; and hence will arise Hæmorrhages and bloody Excretions, which may be partly critical and partly symptomatical. Besides a general Constriction of those Parts which are endowed with a greater contractile Power, will necessarily throw the Fluids on

those

thoſe that are weakeſt, ſuch as the ſmaller Order of Veſſels, many of the Organs and *Viſcera*, but eſpecially the Brain, and the whole Syſtem of the Membranes and Glands.

The *Cure* is to be performed with gentle volatile Medicines of the cordial and diaphoretic Kind, in order to promote Perſpiration; by Application of Bliſters, and by a proper Regimen and Method of Diet. It will bear no other Evacuation than moderate cordial Diaphoretics, and Bliſters, unleſs a gentle Emetic ſhould be indicated in the Beginning, or a ſmall Doſe of Rhubarb when it has continued long. Bleeding is very prejudicial, and much Sweating hurtful. In giving Diaphoretics we ſhould always have regard to the Urine; for if that from being pale, gradually heightens to an amber Colour, we are right in our Doſe, eſpecially if, when in Bed, a gentle Dew or Moiſture comes on without a Reſtleſſneſs; and we muſt always remember, that over-Sweating will raiſe the Fever and endanger the Patient, who muſt ever be kept ſtill and quiet.

If the Patient is inclinable to *Deliquia*, or Faintings, on every little Motion, or complains of greater Laſſitude or Faintneſs than ordinary, it will be neceſſary that he lie in Bed, and have Bliſters applied; if delirious, the Bliſters muſt be laid on high on the Nape of the Neck.

If Reſt is wanted, give a few Grains of the *Flores Martiales*, for Opiates only increaſe the Diſorder; and if a Looſeneſs is feared, the *Flores Martiales* may be more freely given. MANNINGHAM.

A *Vomit* ruffles Nature much leſs than a common Purge, and is neceſſary where a *Nauſea*, Load, and Sickneſs of the Stomach are urgent. If the Body is coſtive, Clyſters of Milk, Sugar, and Salt may be injected with Safety and Advantage every ſecond or third Day. The *temperate Cordial* and diaphoretic Medicines are certainly moſt proper in theſe Fevers; a ſupporting, well regulated, diluting Diet, is neceſſary, and will go a great Way in the Cure, eſpecially if aſſiſted by well-timed Bliſters, and keeping the Patient quiet in Body and Mind. Opiates are commonly very pernicious; mild Diaphoretics, as *Pulv. Contrayerv. Compoſ.* with a little *Caſtor and Saffron*, and ſmall Quantities of *Theriac. Androm.* or *Elixir Paregoricum*, will have much better Effects. Where the Confuſion or Dejection of Spirits are conſiderable, *Galbanum* or *Sylphium*, with a little *Camphire*, ſhould be added, and Bliſters ſhould be forthwith applied to the Neck, *Occiput*, and behind the Ears: During all this, a free Uſe of thin Wine-whey, ſome pleaſant Ptiſan, with a little ſoft Wine muſt be indulged,

A little Chicken-broth alſo is of Service, both as Food and Phyſic, eſpecially towards the Decline of the Diſorder; and for the ſame Reaſon, thin Jellies of Harts-horn, Sago, and Panada, are uſeful, adding a little Wine to them, with Juice of *Seville* Orange or Lemon. HUXHAM.

I formerly recommended Wine in Fevers, which, by a congenial Heat, or cheriſhing Warmth, friendly to Nature, kindly relaxed the tenſe Fibres and Veſſels, taking off the febrile Stricture, the chief Symptom of a Fever and eſſential to it. The Heat is ſufficient to ſubdue a *Lentor*, and ſo remove all ſlimy, mucous, ſizy Indiſpoſitions of the Fluids, where there is not too much preternatural Heat already, or Tendency to Inflammation. In Fevers wherein the Blood is ſuppoſed poor and inactive, filled with Acrimony, and too much colliquated, it deſerves the Character of a high natural Cordial and Alexipharmic, and muſt be placed in the Rank of ſafe and effectual Remedies. I have given it in high Ravings, Head-ach, Toſſing, and Watching, and where the Eyes were much inflamed, with wonderful Succeſs; for it compoſed the Patient, and procured Sleep where Opiates failed, or when I durſt not give them. I have allowed ſometimes a Bottle of Wine in a Day. GILCHRIST.

It was ſaid above that *profuſe Sweats* ſhould never be encouraged; yet, the Patient is never ſo eaſy as while he is in a gentle, eaſy Sweat, for it ſoon removes the Exacerbation of the Heat, Hurry, *&c.* when there are irregular, putrid Heats and Fluſhes, with great Anxiety, Reſtleſſneſs, Delirium, Difficulty of Breathing, and a vaſt Load and Oppreſſion on the *Præcordia*, ſo as to reſemble a peripneumonic Caſe; yet beware of Bleeding, for the ſmall, low, quick and unequal Pulſe utterly forbids it, as well as pale, watery, limpid Urine. The Breathing in this Caſe is not quick, but a thick, laborious, ſighing or ſobbing Reſpiration, many times without a Cough, ſo that this is really ſome Spaſm of the Vitals.

Here then the nervous, cordial Medicines are indicated, and Bliſters to the Thighs, Legs and Arms.

1. ℞. *Pulv. Contrayerv. comp. gr.* xv. *Croc. Ang. gr.* iij. *Confect. Cardiac.* ℈j. *Syr. Croc. q. ſ. M. f. Bolus.* Likewiſe,

2. ℞. *Sal. C. C.* ℈ſs. *Succ. Limon.* ʒiij. *Aq. Alexit. ſimp.* ℥iſs. *M. peracta Effervescentia adde Spir. Lavend. Comp. Syr. Croc. an.* ʒiſs. *M. f. Hauſtus.*

When great Tremors, and *Subſultus Tendinum* come on, inſtead of the *Pulvis Contrayerva*, I uſe ℈ſs. of Muſk, with great Succeſs.

I order

I order this *Bolus* and *Hauſtus* every fifth, ſixth, or eighth Hour, and a *temperate cordial Julep*, and *Spir. Volat. Aromat.* or *fœtid.* may be given now and then out of thin Wine or Cyder-Whey; or, which in many Caſes is better, out of thin Muſtard-Whey.

But this Difficulty of Breathing, Anxiety, and Oppreſſion of the *Præcordia*, often precede a miliary Eruption on the ſeventh, ninth, or eleventh Day, which ſhould be promoted by ſoft, eaſy Cordials, proper Diluents, ſometimes with a little *Theriaca Androm.* or *Elixir Aſthmat.* as tending to calm the Uneaſineſs, and to promote a *Diaphoreſis*.

In profuſe, colliquative Sweats, I have given a little generous red Wine, perhaps a little diluted, which moderates the Sweat, ſupports the Patient, and keeps up, if any, the miliary *Papillæ*.

Towards the Decline of the Fever, when the Sweats are copious and weakening, I give ſmall Doſes of the Tincture of the *Bark*, with Saffron and Snake-root, interpoſing now and then a Doſe of Rhubarb, to carry off the putrid *Colluvies*, which makes the Intermiſſions or Remiſſions more diſtinct and manifeſt.

3. ℞. *Cort. Peruv. pulv.* ℥ij. *Flaved. Aurant. Hiſpal.* ℥iſs. *Rad. Serpent. Virgin.* ʒiij. *Croc. Anglic.* ℈iv. *Coccinel.* ℈ij. *Spir. Vin. Gallic.* ℥xx. *F. Infuſio clauſa per Dies aliquot, deinde coletur.* The Doſe is from ʒj. to ℥ſs. every fourth, ſixth, or eighth Hour.

When there is an evident Intermiſſion, I give Preparations of the Bark out of Draughts made with *Sal. Abſinth.* and *Succ. Limon.* This Method will ſhorten theſe Fevers, even with miliary Eruptions.

Under any Evacuations, diluting Nouriſhment is abſolutely neceſſary to keep up the Spirits, to repair the Loſs of the Juices, and mend the remaining; and the Patient ſhould be frequently prompted to take them. When any Diſcharges are very immoderate, they may be prudently reſtrained, but not repelled. Thus, in a profuſe Diarrhœa, a little *Theriac. Androm.* will moderate the Flux by promoting the cuticular Diſcharge. Hux.

Gilchriſt affirms, that to all the warming, attenuating, ſtimulating, or *antiſpaſmodic* Remedies, *Cinnabar* ſhould be added, and that in no ſmall Quantity. And he highly recommends the Uſe of the Bark in the Decline of long, nervous Fevers, or after a Remiſſion. And when there is Occaſion for Bliſtering, he thinks the Head moſt preferable, whenever it is much af-

fected, though he does not diſapprove the laying Bliſters on the Back and Limbs. On the ſixth or ſeventh Day, when the Head began to be affected with Sleepineſs, or Raving, he obſerved, a Vomit would ſtave them off for ſome Days, or render them more moderate; that before that Time it was too ſoon, and after, too late. When the low, depreſſing, nervous Symptoms are ſtronger, the higher Methods of ſtimulating are more neceſſary and eaſily borne; in Raving, with a low, intermitting Pulſe, *Subſultus*, Fainting, and Coldneſs of the Extremities, beſides frequent Bliſtering, we muſt give *Camphire* and *Caſtor*; and if the Urine is little, *Sal Succini* in ſmall Doſes, given frequently, anſwers beſt, and the Effect is more conſtant. The Uſes of *Serpentar. Virgin. Valerian. Aſa Fœtid. Myrrh*, and terreous Abſorbents, are well enough known, and the Forms in which they are given. Refreſhing Juleps ſhould not be taken by Spoonfuls, but by Draughts. Acrid Cataplaſms may be laid to the Feet till they begin to ſtimulate or raiſe a juſt Degree of Heat: Then apply Poultices of Bread, Milk, and Vinegar, eſpecially during the Exacerbation, to allay the Heat and Struggle; renewing them alternately in order to keep up a gentle Heat and *Stimulus*. A quick, hard, and more contracted Pulſe, with ſmart Heat, Toſſing, and Anxiety, ſhew it is over-done.

The following Things, as Occaſion ſhall offer, may be taken in ſome convenient Vehicle, ſuch as Sack-whey, Barley-water, ſoft Wine, or appropriate Julep.

4. ℞. *Pulv. e Chel. Canc. comp. gr.* xv. *Croc. Caſtor. an. gr.* iij. *M. f. Pulvis.* Or,

5. ℞. *Pulv. Contrayerv. comp. gr.* x. *Caſtor. gr.* v. *Croc. gr.* iij. *M. f. Pulvis.*

If a Bolus is more agreeable,

6. ℞. *Pulv. Contrayerv. gr.* xv. *Croc. gr.* iij. *Confect. Alkerm. q. ſ. M. f. Bolus.*

If it imitates a Pleuriſy,

7. ℞. *Sperm. Cet.* ℈j. *Pulv. Contrayerv. gr.* xv. *Caſtor. gr.* iij. *M. f. Pulvis.*

Riverius's ſaline Draught is alſo uſeful in this Diſeaſe, taken every eight Hours, as well as *Huxham*'s abovementioned.

8. ℞. *Sal. Abſinth.* ℈ſs. *Succ. Limon.* ℥ſs. *Aq. Fontan.* ℥j. *M. f. Hauſtus.*

In the *State* of the Diſeaſe the Remedies may be more active, as,

9. ℞. *Pulv. Contrayerv. gr.* xv. *Serpentar. Virgin. gr.* v. *Croc. Caſtor. an. gr.* iij. *M. f. Pulvis.*

If

If the Urine is ſmall in Quantity, gr. v. *Sal. Succin.* may be added. Or,

10. ℞. *Rad. Valerian. Sylveſt.* ℈j. *Caſtor. Croc. an. gr.* iij. *Aſæ Fœtid. gr.* ij. *M. f. Pulvis.*

When the Caſe is almoſt deſperate,

11. ℞. *Moſch. gr.* xv. *Sal. Corn. C. gr.* viij. *Camph. gr.* iv. *M. f. Pulvis.*

If the Pulſe is carefully attended to, this Fever may be always known, though it is apt to put on various Shapes, and will yield to the mild diaphoretic Remedies and moderate Cordials. Thus, Difficulty of Breathing, *Nauſeas*, and Inclination to vomit, Diarrhœas, with high-coloured, turbid Urine, regular Exacerbations like Intermittents, Continual Fevers, Atrophy and Hectic Fevers, Fits of the Cholic, Suppreſſion of the Menſes, *&c.* are only caſual Symptoms of this. Even Hæmorrhages muſt be only treated with Subaſtringents. And Madneſs itſelf, the Conſequence of this Diſeaſe, may be cured by the *Extract* of the *Bark*, and a few Grains of the *Flores Martiales*. Child-bed Women who have this Fever, ſhould never leave their Beds too ſoon, for they often have died ſuddenly for want of obſerving this Rule. The Stoppage of the *Lochia* may be removed with *Sperm. Cet. Pulv. Contrayerv.* and *Croc.* Bliſters and copious Bleedings in this Caſe are fatal. MANNINGHAM.

Of Epidemic, Catarrhal, Eruptive FEVERS.

THESE *Fevers* are *continual* but not violent: They are attended with a Proſtration of Strength, Watching, Loſs of Appetite, and are ſometimes joined with an Eruption of Spots on the Skin, ariſing from the Plenty and inteſtine Diſſolution of an *excrementitious* Serum, not without Contagion and Danger of Life.

Theſe Fevers were called by the Ancients, *continual*, *quotidian*, *ſerous Fevers*; and by ſome of the Moderns, *malignant catarrhal Fevers*, becauſe they are mild at firſt, and attended with a Running at the Noſe, a Catarrh, an Infarction of the Breaſt, and a Cough on the firſt Days, with Exacerbations at Night.

At the Beginning of this Diſeaſe the Face of the Patient has a morbid Aſpect, and he is out of Order three or four Days before he takes to his Bed. He complains of a ſpontaneous Wearineſs, a grievous Pain of his Body and Joints, as if his Bones were bruiſed and broken; his Strength is languid, his Appetite

is

is loſt, he has a ſlight fainting Fit, a cardialgic Nauſea, a Pain in the Head, an unquiet Sleep, with Coſtiveneſs. In the Evening there is a Coldneſs and Shivering followed by Heat, the Symptoms increaſe, there is a greater Loſs of Strength, inſomuch that he can ſcarce ſtand upright. The Pain in the Head grows worſe, with a Giddineſs and Inquietude. Some have a violent Pain in the Back, others in the Side: They have an Anxiety about the *Præcordia*, the internal Parts are hot, the *Fauces* dry, the Pulſe contracted, quick and weak, the Urine is pale without a Sediment, and the Breathing difficult.

On the *fourth* or *eleventh Day*, Spots appear in ſome, chiefly on the Back, Breaſt, and Arms, with or without Relief. Some have more, ſome leſs, of various Colours, as purple, a browniſh livid, or a pale Roſe. Theſe are ſometimes broad, ſometimes ſmall; and in many like Flea-bites. Theſe different Spots ſerve to diſtinguiſh the Fever by ſeveral Names, ſuch as *miliary*, *punctícular*, *baſtard petechial*, and the like.

When the Diſeaſe is at its *State*, or *Vigour*, all the Symptoms are worſe; the Inquietude runs very high, as well as the Toſſing of the Body with unuſual Poſtures. The Mind is diſturbed, the Speech incoherent, Sleep wanting, the Sweat is coldiſh, with a more intenſe Difficulty of Breathing, and a contracted, unequal, quick, and frequent Pulſe, as in the nervous Fever.

When a *ſubſultus Tendinum*, Want of Thirſt, Rumbling in the Belly, Hiccup, an Inflammation of the *Fauces* from *Aphthæ*, Convulſions, a *Syncope*, with Coldneſs of the Extremities, and a moſt plentiful Sweat ſupervene to theſe Symptoms, they are certain Forerunners of Death. On the other hand, when a Sweat breaks out about or on the critical Days, that is, the *ſeventh*, *eleventh*, or *fourteenth Day*, and continues ſeveral Days, tho' Want of Strength remains; or if there is a Looſeneſs for ſome Days, it is a Sign of Health: And this the more certain, if the contracted Pulſe enlarges, the hard grows ſoft and becomes more equal; if the Patient is more chearful, and his lying in Bed more ſedate, with a Hardneſs of Hearing, and a turbid Urine, depoſiting a Sediment. If this happens about the critical Days it is a certain Sign of a happy Event. After this the Sleep, Appetite, and Strength gradually return; but this is ſeldom the Caſe before the fourteenth Day.

Patients of a ſtrong Conſtitution, the common People, and Ruſtics, with a good *Regimen* alone, generally ſucceed better than the Weak, Timorous, the Sad, the Thoughtful, the Luxurious, the Slothful, and the Studious. All Excretions by Urine, Stool or Sweat, are bad in the Beginning, and on other Days except the critical. Thoſe who die are carried off by a Phrenſy,

or

or an Inflammation of the *Meninges*, or of the *Oeſophagus* and *Fauces* from *Aphthæ*, or of the Stomach itſelf. If Blood is taken away in theſe Diſeaſes, it is either of a bright red, very fluid and ſerous, or too thick and blackiſh.

In the *Cure of this Diſeaſe*, the Phyſician ſhould take Care not to diſturb the ſalutary Excretions, but proceed cautiouſly, and abſtain from ſtrong Medicines of every Kind, watching and aſſiſting the Motions of Nature as much as poſſible. The *Indications* are, 1. To reſtrain and prevent the entire Diſſolution of the Blood and Humours. 2. To temperate and dilute the *Salino-ſulphureous* Acrimony of the Humours, and at the ſame Time to keep the Fluids fluxile. 3. To promote gently the Excretions by Stool, Urine, the Skin and Spittle. 4. To aſſiſt and reſtore the loſt Strength.

To *prevent the putrid Diſſolutions of the Humours*, direct Vinegar, the Juices of *Oranges* and *Lemons*, and Syrups of the ſame; Spirit of Vitriol, Spirit of Salt, Spirit of Nitre, eſpecially thoſe that are dulcified.

To *abate the Acrimony*, *abſorbent*, *teſtaceous*, and *bezoardic* Powders will be proper. To dilute at the ſame Time, you may order a Decoction of Barley with *Scorzonera* and Shavings of Hartſhorn; as alſo the Syrup of Orange-Juice, Chicken-Broth, and the like.

1. ℞. *Calc. Antimon. Corn. C. ſine igne ppt. Ocul. Canc. Matr. Perlar.* [*ſive Teſt. Oſtrear. ppt.*] *an* ʒj. *Nitr. depurat.* ʒſs. *M. f. Pulvis.* The Doſe is from ℈j. to ʒſs.

To *promote the cuticular Excretions*, give diaphoretic ſimple Waters, alexiterial Waters with the Tincture of Valerian-root, or Snake-root. To *aſſiſt the Excretions by Stool*, common domeſtic Clyſters will be uſeful; or thoſe made of a Decoction of Barley, Oil of Sweet Almonds, Camomile Flowers, Elder Flowers, Syrup of Violets, Common Salt, or Nitre. Or,

2. ℞. *Lact. Vaccin.* ℔ ſs. *Sacchar. rub. Ol. Olivar. an.* ʒj. *M. f. Enema.*

Or you may order the following Laxative, which muſt be given with Caution.

3. *Mann.* ʒij. *Cremor. Tartar.* ʒj. *In Aq. Scorzon.* ʒiij. *vel Aq. Piper. Jamaicenſ. Solut. Syrup. Violar.* ʒſs. *Ol. Junip. Gut.* iij. *M. f. Hauſtus.*

To *raiſe the Spirits and reſtore the Strength*, a little Wine will not be improper, with Hartſhorn Jellies, *China* Orange, or *Seville* Orange Juice, with Sugar.

A *con-*

A *congruous Regimen* in theſe Diſeaſes is of very great Conſequence; for *if the Patient is kept too hot*, the Diſſolution of the Blood will be promoted, a Coſtiveneſs will be induced, the Anxiety will be increaſed, the impure ſalt, acrid Humours will be actuated, the Strength will be exhauſted, the Sweating will be too ſpeedy and profuſe, and Spots will appear on the Skin. On the other hand, if *Cold is incautiouſly admitted*, eſpecially to the Feet, Perſpiration will be checked, the Eruptions and Spots will be driven back: There will be griping Pains, a Looſeneſs, and the critical Evacuations will be diſturbed. All ſudden Changes from hot to cold, or cold to hot, are equally bad. A *temperate Regimen is beſt*. However, Care ſhould be taken that the Patient does not breathe his own Atmoſphere full of morbid Exhalations, ſo very prejudicial to Health; but the Air ſhould be drawn out of the Room, and freſh admitted.

The Perſpiration ſhould be conſtantly kept up, and the Linen of any Kind ſhould not raſhly be changed, nor ſhould the Patient be removed from one Bed to another. He ſhould be enjoined not to riſe frequently, nor ſhould the Bed be made on critical Days, when the Spots are likely to appear. And if the Bed-cloaths are wet, and muſt needs be changed, let them be well aired and pretty much worn. A Night or Bed-gown will be alſo very proper to keep on conſtantly; for it will be a Defence againſt cold Air.

An *erect Poſture of the Head and Body* is to be ſhunned, either in or out of Bed, eſpecially if the Pulſe is very weak and the Strength little; as alſo when the Diſeaſe is near the State: For in theſe Caſes the Heart will not be able to ſend a ſufficient Quantity of Blood perpendicularly to the Head, and conſequently Fainting, ſometimes Death, will enſue; or the Motion of the Blood and Arteries will be ſtopt; all the Motions will be turned inwards; the fibrous and tubulous Subſtance of the Skin will be contracted; the eruptive Matter, now more depraved, will be repelled, and carried to the nervous Parts; whence Convulſions, Deliriums, and ſoon after fatal Mortifications will ſucceed.

The *Mind ſhould be kept as chearful as poſſible*, and all Occaſions ſhunned of exciting Anger, Fear, Terror, or Puſillanimity in the Patient. His Hope of Recovery ſhould be kept up as much as poſſible, inſtead of being terrified with the Prediction of Death. I have known Patients who have laboured under this Diſeaſe, and would in all Probability have recovered, if ſome Prieſt, or over-wiſe Phyſician, had not foretold and inculcated a ſpeedy Death; which has ſo affected the ſick Perſon

with

with Dread and Horror, that there has been an immediate Change manifeſtly for the worſe.

The *Patient muſt abſtain from fat Things, Fleſh, and Eggs*, during the Courſe of this Diſeaſe, for they only tend to increaſe the Impurity of the Humours, the morbific Matter, and to haſten Death.

It is an undoubted Axiom, that all *ſtrong Medicines are hurtful in this Diſeaſe*; ſuch as Emetics, Purgatives, and Diuretics; as alſo Sudorifics of too ſpirituous a Nature: But temperate and moderate Things are very uſeful.

It muſt be rememebred likewiſe, that *theſe Fevers have certain Types and Periods*, and Exacerbations and Remiſſions at certain Times; which a Phyſician ſhould always carefully obſerve. In the febrile Heat, and when the Symptoms are moſt intenſe, *Humectants*, *Diluents*, and the abſorbent nitrous Powders above-mentioned will be moſt proper, with a very moderate external Regimen. When the Paroxyſm is ended, the Skin lax, more ſoft and diſpoſed for Excretions; then Analeptics, Medicines that ſtimulate; and, if there is Occaſion, Bezoardics, and Things that promote Perſpiration; as alſo the Infuſion of *Veronica*, *Scordium* and Liquorice, drank as Tea, are likely to do the greateſt Service. And becauſe a *Diarrhœa* frequently carries off the Diſeaſe, it is never to be ſtopped, eſpecially about the critical Times, neither with Aſtringents, Sedatives, nor Opiates: But if Nature tends to this Excretion, and is too ſluggiſh, ſhe is to be aſſiſted by the laxative *Hauſtus* above-deſcribed, with the Addition of Tamarinds.

When there is *too great an internal and external Heat*, with Dryneſs of the Mouth, Thirſt, and Watching, then nitrous Medicines will be neceſſary, with a moderate Quantity of diluting Liquors often repeated. On the other hand, when the Diſpoſition is ſluggiſh, phlegmatic, and timorous, the Heat very mild, no Thirſt, the Pulſe weak and languid, with a Proſtration of Strength, Sleepineſs, and *Torpor* of the Mind, cooling Things muſt be avoided, and Analeptics, together with the bezoardic Tinctures, muſt be given, a little at a Time, and often. When the Eruptions are of the miliary Kind, and red, fixt bezoardic Powders, as alſo Diluents, Demulcents, and Emulſions, will be moſt ſerviceable.

When there is a Pain in the Head with a Delirium, cut open a live Chicken or Pigeon, and apply it to the Head when the Hair is ſhaved off. In Fainting, Vomiting, the *Cardialgia*, or extreme Lowneſs, apply a Plaiſter of *Venice* Treacle, expreſſed Oil of Nutmegs, Camphire, Balſam of *Peru*, Saffron, Oil of Juniper, and a little Spirit of Wine to the Region of the *Præcordia*;

cordia; as alſo in a Hiccup, (but more eſpecially a *Muſk Bolus.*) In Dryneſs and Heat of the Fauces, direct Hartſhorn Jellies with Juice of Lemons and Sugar-Candy, or Syrup of Mulberries. Likewiſe let the Mouth be waſhed with a Decoction of Figs, Syrup of Mulberries, and Nitre. When the Patient is very ſleepy, let the Legs and Soles of the Feet be waſhed with Vinegar of Rue, or apply a mild Bliſter to the Calves of the Legs. If the ſtriking in of miliary Eruptions cauſes Inquietudes and Anxieties, ſuccinated Spirit of Hartſhorn will be proper, with dulcified Spirit of Nitre. In a Cough give Oil of Sweet Almonds, and Extract of Saffron.

There is no Evacuation ſo dangerous as *bleeding at the Noſe*; for then there is a Congeſtion of Blood in the Head from the Spaſms of the lower Parts. However, if the Flux of Blood is moderate, and the Body abounds with it, inſtead of being hurtful, it will relieve the Head, though this ſeldom happens. When there are a few Drops only without Alleviation, they portend a Delirium and an Inflammation of the *Fauces:* But when the Flux is copious, the Strength will diminiſh, and the Eruptions return inwards not without Danger. Therefore, to prevent a Conflux of Blood to the Head, the Feet muſt be always kept in a moderate Heat and Moiſture; mild Bliſters ſhould be laid to the Calves of the Legs, and the Body ſhould be opened with Clyſters or Solutions of Manna. Theſe will alſo be ſerviceable when the Hæmorrhage is too large. But when it is too little, and the Eyes look red and wild, with a ſtrong Pulſation of the temporal Arteries, beſides the former, it will be proper to apply Cupping Glaſſes to the Nape of the Neck, or to thruſt a Straw up the Noſe to cauſe it to bleed, or to uſe a ſcarifying Inſtrument. *When the Stools are too frequent* uſe bezoardic Powders, with a few Grains of the *Cortex Eleutheriæ*; or, which is better, anoint the Abdomen with a Mixture of expreſſed Oil of Nutmegs, eſſential Oil of Mint, and Balſam of *Peru*. When the Sweats are too profuſe, too many Bed-cloaths muſt be avoided, and no hot Infuſions muſt be drank.

Bleeding in theſe Fevers muſt be uſed with great Circumſpection; for it is much more proper as a Preſervative than a Cure. But when the Diſeaſe has made its Onſet, with great Loſs of Strength, complicated with catarrhal Diſorders, and when putrid and malignant Fevers are rife, it muſt be always omitted. If the Stomach has been lately ſurfeited with incongruous Aliment, a Grain or two of *Tartar Emetic* in a Solution of Manna will be neceſſary, becauſe it will diminiſh the *Fomes* of the Diſeaſe. *Bliſters* will be of great Uſe when a Retroceſſion of the Eruptions is apprehended, when the Excretions are ſlow, and

when

when there is a Sleepineſs and *Torpor*. In which Caſes they may be laid to the Arms and Calves of the Legs. HOFFMAN.

Conſult the following Section.

Of the Malignant, Goal, *and* Spotted FEVERS.

THE true *ſpotted Fevers* are very *malignant*, *contagious*, and detrimental to the Head and Strength, attended with *Spots of various Colours*, ariſing from a Corruption of the vital Fluids, and a putrid Diſſolution conſequent thereupon.

Theſe *petechial Fevers* are deſervedly called *malignant*, or *poiſonous*, as they generally proceed from a moſt ſubtle, active, virulent Vapour, or *Miaſma*, which is infectious, from a noxious Steam ariſing from the Body of the Patient. At firſt they often ſeem mild and gentle, and have the Appearance of *catarrhal Fevers*; but they ſoon exert their virulent Effects in a moſt fatal Manner.

At firſt the Patient complains of great Weakneſs and Loſs of Strength, that he can ſcarce walk or ſtand upright, and is apt to faint away.

The Head achs, and, from the very Beginning, is hot, dull, attended with a Dejection of Mind, and a Kind of Deſperation. There is a conſtant Watchfulneſs, or, if there is any Sleep, it is not refreſhing; the Appetite is loſt; the Countenance is dejected; the Pulſe is languid, ſmall, and unequal; the very lying in Bed is diſorderly, and unuſual; there is an Oppreſſion of the Breaſt, ſometimes a dry Cough, an undulatory and tremulous Twitching of the muſcular and tendinous Fibres, with a *Subſultus Tendinum*. Many neither complain of Heat, nor Pain, nor Anxiety, and aſſert that they feel nothing bad, but Weakneſs and Want of Sleep. The Urine is generally thin at firſt, and like that of ſound People. On the fourth, fifth, or the ſeventh Day, the Spots appear principally on the Back and Loins, of various Colours, generally without Relief; wherefore they are rather ſymptomatical than critical. HOFF.

Huxham ſays, theſe Fevers attack with much more Violence than the ſlow and nervous; the *Rigors*, if any, are greater; the Heats ſharper, and more laſting, yet at firſt ſudden, tranſient, and remittent; the Pulſe more tenſe or hard, but commonly quick and ſmall, though ſometimes ſlow and ſeemingly regular for a Time, and then fluttering and unequal. The Head-ach, Giddineſs, Nauſea, and Vomiting, are much more conſiderable even from the very Beginning. Sometimes a ſevere

fixed

fixed Pain is felt in one or both Temples, or over one or both Eye-brows, frequently in the Bottom of the Orbit of the Eyes. The Eyes always appear very full, heavy, yellowiſh, and often a little inflamed. The Countenance ſeems bloated, and more dead coloured than uſual. Commonly the temporal Arteries throb much, and a *Tinnitus Aurium* is very troubleſome; a ſtrong Vibration alſo of the carotid Arteries comes on frequently in the Advance of the Fever, though the Pulſe at the Wriſt may be ſmall, nay, even low: This is a certain Sign of an impending *Delirium*.

The Proſtration of Spirits, Weakneſs, and Faintneſs, are often ſurprizingly great, and ſudden; ſometimes, when the Pulſe ſeems tolerably ſtrong, the Reſpiration is very laborious, and interrupted with a Kind of Sighing, or Sobbing, and the Breath is hot and offenſive.

There is generally a Sort of *Lumbago*, or Pain in the Back and Loins, a Wearineſs, Soreneſs, and Pain in the Limbs. Sometimes a great Heat, Load, and Pain at the Pit of the Stomach, with a perpetual vomiting of porraceous or black Bile, of a nauſeous Smell, with a troubleſome Hiccup.

The Tongue, at the Beginning, is white, but grows daily more dark and dry, or of a ſhining livid Colour, with a Kind of Bubble at the Top; ſometimes exceeding black for many Days: At the Height, it is generally dry, ſtiff, and black, and the Speech ſcarcely intelligible.

The Thirſt, in the Increaſe of the Fever, is commonly very great, ſometimes unquenchable; and all the Drinks ſeem bitter and maukiſh; at other Times there is no Thirſt, tho' the Mouth and Tongue are exceedingly foul and dry; this is a dangerous Symptom, and ends in a Phrenzy, or *Coma*. The Lips and Teeth, near the *State*, are furred with a very black tenacious *Sordes*.

At the Onſet of the Fever the Urine is often crude, pale and vapid, but grows to ſo high a Colour as to reſemble a ſtrong Lixivium, or Citron Urine, tinged with a very ſmall Quantity of Blood; it has no Sediment, or Cloud, for many Days together, but by Degrees grows darker, like dead ſtrong Beer, and ſmells offenſive.

The Stools, eſpecially near the *State*, or in the Decline of the Fever, are for the moſt Part very offenſive, green, livid or black, frequently with ſevere Gripes or Blood. When they are more yellow or brown, the leſs is the Danger; but the Danger is greateſt of all when they come away inſenſibly. If the Belly be hard, ſwelled, and tenſe, it is a very bad Symptom.

A gentle

A gentle *Diarrhœa* is often very beneficial, by which Nature carries off the morbific Matter.

The more florid the Spots are, the leſs is the Danger; and it is a good Sign, if the black or violet become of a brighter Colour. The large, black or livid Spots are almoſt always attended with profuſe Bleedings. The ſmall, duſky, brown Spots, like Freckles, are almoſt as bad as the livid and black. Sometimes they are attended with profuſe, cold, clammy Sweats; at which Time the Spots vaniſh without any Advantage.

The Eruption of the Spots is uncertain; ſometimes they appear on the fourth or fifth Day; ſometimes not till the eleventh, or later. The *Vibices*, or large livid, or dark greeniſh Marks, ſeldom appear till very near the fatal Period. Sometimes about the eleventh or fourteenth Day, when the Sweats are profuſe, the Spots diſappear, and vaſt Quantities of ſmall, white, miliary Puſtules break out. If there is an itching, ſmarting, red Raſh, it commonly greatly relieves the Sick, as well as large, fretting, watry Bladders, on the Back, Breaſt, and Shoulders. A ſcabby Eruption about the Lips and Noſe is a ſalutary Symptom; the more hot and angry the better. Brown, dark *Aphthæ* are more uncertain and dangerous, as well as thoſe exceeding white, and thick like Lard. They are followed without Difficulty of Swallowing, Pain, and Ulceration of the *Fauces* and *Oeſophagus*, with inceſſant Hiccup: The whole *Primæ Viæ* are at length affected, a bloody Dyſentery comes on, and a Mortification of the Inteſtines.

Pringle obſerves, that in *Hoſpital*, *Goal*, or *Camp Fevers*, the firſt Complaints are gentle Horrors, and little feveriſh Heats, alternately ſucceeding each other, with Loſs of Appetite; the Diſorder being greateſt at Night, the Body is hot, the Sleep interrupted, and not refreſhing. They have conſtantly ſome Pain and Confuſion in the Head, chiefly about the Forehead: The Pulſe is, at firſt, but little quicker than the natural, and the Drought, if any, is inconſiderable. They are too ill to mind Buſineſs, and too well to be confined. In this State, a Change of Air, with a Vomit and Sweat, will perform a Cure; yet a large Bleeding at this Time will ſink the Pulſe, and bring on a *Delirium*.

When the Symptoms come on quick and violent, the Fever ſeems to be inflammatory, and can only be diſtinguiſhed by a Knowledge of the Circumſtances; and Bleeding yields no Relief, but exaſperates the Complaints. The aforeſaid Symptoms are now more high, with great Laſſitude, *Nauſea*, and Pains in the Back, with Pain and Confuſion in the Head, and great Dejection of Spirits.

The Pulſe at this Time is generally quick and full; now a moderate Bleeding affects the Pulſe but little; if large, it will ſink and bring on a Delirium. The worſt Kind of Blood is when the *Craſſamentum* is diſſolved, which is a Sign of high Putrefaction.

The Urine is ſometimes at firſt of a reddiſh, or Flame Colour, which it preſerves throughout; at other Times it is pale, and varies from Day to Day, being ſometimes clear, ſometimes clouded; but towards the End, if the Diſtemper takes a favourable Turn, it becomes thick, and at laſt depoſits a Sediment: Yet many have recovered without any Sediment at all, if the Water has been thick about the Criſis.

If the Patient lies warm, the Body is generally coſtive; if cold, there is a *Diarrhœa*. If they have bilious Stools when they are warm, they are critical, and not to be checked unleſs immoderate. In the worſt Kind of theſe Fevers, in the laſt Stage, a *Diarrhœa* commonly carries the Patient off; but then the Stools are involuntary, colliquative, ichorous, or blackiſh, and of a cadaverous Smell, which are the Effects of a Mortification in the Bowels.

The Heat of the Body at firſt is not conſiderable; but if the Pulſe is felt for a while, there is an uncommon Heat, which remains upon the Fingers ſome Minutes afterwards. A Day or two before Death, the Extremities feel quite cold, and then the Pulſe is hardly to be diſtinguiſhed.

The Skin is generally dry and parched, yet in the Beginning there are often imperfect Sweats, without any Relief. A continued and generous Sweat is the ſureſt Cure.

The Tongue is generally dry, hard, and black, with deep Chaps, but towards the laſt it is ſoft and moiſt, and the Colour is a Mixture of green and yellow. The Drought is ſometimes great, at other Times very little.

Some preſerve their Senſes through the Courſe of the Diſeaſe, except a Confuſion and Stupor, but few keep them till Death, if it prove fatal. They ſleep ſeldom, and ſeem to be penſive and in deep Thought. The Face is not ghaſtly nor morbid, till towards the laſt. The Confuſion of the Head often riſes to a *Delirium*, eſpecially at Night, but ſeldom changes to Rage. A Tremor is more common than a *Subſultus Tendinum*. The Pulſe ſinks all along; the Stupor, or *Delirium*, and Tremor increaſe, and the Spirits are relieved in Proportion to its riſing to the Head. Frequently the Patient is dull of hearing from the very Beginning, and at laſt grows almoſt deaf.

There

There is always a great Dejection of Mind, and Failure of Strength. When the *Delirium* is at its Height, the Face is commonly flushed, and the Eyes red, unless after large Evacuations; then it appears meagre: The Eyelids in Slumbers are only half shut, and the Voice, which is constantly slow and low, sinks to a Degree scarce to be heard.

When the Fever is protracted with a low Pulse, they have a particular craving for something cordial; and nothing is so acceptable as Wine. They long for no Food, but will take Panada if mixt with Wine.

Vomiting and Sickness at the Stomach, though frequent, are casual. Neither pleuritic Stiches, Difficulty of Breathing, nor flying Pains, are any Part of the Disease, unless it falls upon a weak Part.

There are Spots, but not always. In Hospitals they are less usual at the first breaking out of the Disease, but when the Air is more corrupted, the Spots are common. They are of the petechial Kind, of an obscure red, paler than the Measles, not raised above the Skin, of no regular Shape, but confluent; yet upon a nearer Inspection, the Interstices may be seen. They are generally not very conspicuous. These Spots are very irregular, sometimes appearing on the fourth or fifth Day, and at others on the fourteenth. They are neither critical nor mortal Signs, but dangerous; if Purple, they are more ominous, but not absolutely mortal. In a few Cases there have been purple Streaks and Blotches. These sometimes, as well as the Spots, do not appear till after Death. This Fever, on account of its Exacerbations at Night, may be looked upon as the lowest Degree of the remitting Kind.

The Duration is uncertain, and in Proportion to the Virulence. Their Course is generally from fourteen to twenty Days: Some have died or recovered after four Weeks. When the Course is long, it commonly terminates in Abscesses of the parotid or axillary Glands; sometimes in an hectic: Some, after this Fever is over, fall into an irregular Intermittent; many complain of a Pain in their Limbs, and Want of Rest, and almost all of great Weakness, Confusion in their Heads, and Noise in their Ears. When the Air is highly malignant, the Disease terminates, in five or six Days, either in Death or a critical Sweat.

The most peculiar Symptoms of this Disease, are always a singular Attack upon the Head, as a Stupor, or Pain; and if it lingers, a slow, low Voice and sinking of the Spirits, without any large Evacuation; pale Urine, petechial Spots, the bad Effects of large Bleeding, or too many Clysters; lastly,

the Diſagreement of cooling Medicines, excepting in the Beginning; and on the other hand, the Agreement with Wine, Volatiles, and other Cordials, during the greateſt Part of the Diſeaſe.

I have been the more particular in reciting the Symptoms of theſe Diſeaſes, becauſe it will tend to give a farther Light into their Nature, and conſequently to eſtabliſh a more certain Method of Cure; for I am perſuaded they are not well underſtood by the Generality. PRINGLE.

As to the *Prognoſtics*, the Spots are ſo far from being ſalutary, that the more plentiful they are, the greater is the Degree of the Corruption; when they are livid, lead-coloured, and of a greeniſh Black, they ſhew a ſphacelous Corruption. Thoſe who eſcape are not freed by a cutaneous Excretion, but by large Sweats, breathing a ſtinking Acor; or by critical Fluxes of the Belly; which happen by the Benefit of Nature, when the Corruption of the Fluids is not great. Many are apt to fall into a ſphacelous Corruption of the Stomach, Inteſtines, and other *Viſcera*, or into a Phrenſy, or more frequently into an anginous Inflammation of the *Fauces* and *Oeſophagus*, as appears from the intolerable Smell which happens after Death. This unhappy Event is preſaged, if there is no Thirſt, or one that is unquenchable; if the Tongue is dry, chapt, black, the *Fauces* inflamed and beſet with *Sordes*, with difficult Swallowing; if after the Eruption of the Spots, a difficult Breathing and Straitneſs of the Breaſt remains and gains Ground, or if a *Delirium* increaſes after Sweating, and a Flux of the Belly, the Urine being at the ſame Time turbid, and depoſiting no Sediment; laſtly, if the Eyes are dim, the Patient catching at Straws; if there is a *Subſultus Tendinum*, if the Excrements come away inſenſibly, or if there is a cold Sweat with Convulſions. HOFFMANN.

Pringle obſerves, that thoſe who are weakened by other Diſtempers, or their Cures, are more ſuſceptible of the Goal or Hoſpital Fevers than the ſtrong and vigorous; and that one who is recovered is more ſubject to relapſe than he was to be firſt attacked.

All the Prognoſtics, ſays he, taken ſingly, are uncertain. The following Signs are good; to have no *Delirium*, to have the Pulſe neither very low nor quick, or, if ſunk, to have it riſe by Wine or Cordials, with an Abatement of the *Delirium*; and to have the Tongue moiſt and of a natural Colour. It ſeems peculiar to this Fever, that Deafneſs is generally a good Sign. The natural and beſt Criſis is by Sweat, when the Pulſe riſes, and the Symptoms abate; next to that is an inſenſible

ſenſible Perſpiration, which is known by the Softneſs of the Skin, Moiſture of the Tongue, and a Remiſſion of the other Symptoms. Bilious Stools, with turbid Urine, and a moiſt Tongue, may be conſidered as Signs of a favourable Criſis. But the contrary of all theſe are bad, as alſo the *Subſultus Tendinum*, inflamed Eyes, and great Anxiety. It is obſerved to be among the worſt Signs, when the Patient complains of Blindneſs, or when he cannot lie but on his Back, and pulls up his Knees; or if, when inſenſible, he endeavours to uncover his Breaſt, or makes frequent Attempts to get out of Bed. If there are ichorous, cadaverous, and involuntary Stools, it is a Sign of certain Death.

The *formal Ratio* of theſe pernicious Fevers conſiſts in the putrid Diſſolution, or Colliquation of the Blood and vital Fluids, eſpecially of that highly elaſtic, fine Fluid, which is contained in the Blood, and ſeparated in the Brain and ſpinal Marrow, by which it is diſtributed by the Nerves to all the Body, endued with Senſe and Motion, for it greatly vitiates and defiles this Liquid. However, ſuch is the Nature and Power of that poiſonous Vapour, by which ſound Bodies are infected, that it not only induces a putrid Fermentation into the Blood and other Fluids, but acts immediately on the inward and nervous Parts of the Brain, which it corrupts, and produces a Languor in the vital and animal Powers, while the State of the Blood and Humours remain free from Corruption.

This violent Vapour enters the Body by the Noſtrils, *Fauces*, and *Bronchia*; for the Nerves of the firſt and ſecond Conjugation are no where ſo expoſed as in the Cavity of the Noſtrils; whence it immediately reaches the Nerves in the Brain, and renders the Patient light-headed, with a Dulneſs of the Head, a Loſs of Strength, and a vertiginous Affection. It likewiſe mixes with the *Saliva*, deſcends into the Stomach, which is a nervous Part, and there takes up its principal Reſidence; whence the bad Symptoms generally appear firſt in the Stomach and *Præcordia*, with a *Nauſea*, and Inclination to vomit, as alſo a *Diarrhœa* with Gripes, or a Coſtiveneſs, with loathing of Food, Anxiety of the *Præcordia*, and watery Eructations from the Stomach.

Hence the Reaſon evidently appears, why nothing is more proper to guard againſt this Diſeaſe than turning away one's Face from the Patient, frequent ſpitting, chewing *Angelica*, *Zedoary*, *imperne*l, and ſmoaking Tobacco; hence likewiſe appears why the Force of this Poiſon is exerted in the Stomach, which is beſet with copious Crudities, and pituitous and *ſa-*

lival Sordes; and likewiſe why gentle Emetics, joined to *Alexipharmics*, commonly deſtroy the Diſeaſe in the Bud.

It may be induced by a bad State of the Air; for a long, moiſt, rainy, cloudy, and ſoutherly State of the Air, dulls and depreſſes the Motions of the Solids and Fluids neceſſary for Life; to this may be added, a long and frequent Inundation of Water, which is apt to generate putrid Diſeaſes, as likewiſe the Exhalations ariſing from putrid unburied Bodies, or from the Excrements of Animals, eſpecially if confined, and ſhut up from the Air. There is likewiſe a Diſpoſition in the Body itſelf towards theſe Diſeaſes; for Experience ſhews us, that thoſe of a *ſanguineo-phlegmatic Conſtitution*, of a lax and ſpungy Nature, who are fearful and anxious, given to Luxury, oppreſſed with Cares, weakened with Labour, and Bleeding, are moſt apt to receive the Infection; likewiſe ſuch as labour under the Suppreſſion of uſual Evacuations.

In the *Regimen*, it is neceſſary, if poſſible, to breathe a ſerene, temperately warm Air; the Room ſhould not be heated too much, it being found to be hurtful. The Patient ſhould eat nothing ſolid in the Decline of the Diſeaſe, nor after it. A free uſe of Food, of nouriſhing and comforting Broths abounding with oleous Particles, is pernicious, eſpecially about the critical Days, in the State of the Diſeaſe, or when there is any critical Evacuation. Nothing is more hurtful than an erect Situation, as I have often obſerved in other malignant and eruptive Diſeaſes, becauſe the Blood has a more languid Motion from the Heart, and cannot be driven perpendicularly to the Head.

Alexipharmics, volatile Salts, hot and ſpirituous *Bezoardics*, are hurtful, eſpecially with a hot Regimen, for they diſſolve the Blood, and increaſe the Number of Spots, or cauſe Headachs, Inflammations, or copious Sweats. Theſe Things taken by Way of Prevention, have precipitated the Patient into this Diſeaſe. But if volatile *Alexipharmics* are taken moderately and cautiouſly, with *Analeptics*, when the Spots have diſappeared, or when there have been high Anxieties and Debilities from Cold, or an erect Situation, they have been ſerviceable. We have likewiſe adviſed their Uſe, when the Circulation of the Blood was in its Vigour, for then they diſſipate a great Part of the peccant Matter; likewiſe when the Criſis is coming on, *Bezoardic* Volatiles in a moderate Doſe, haſten the critical Evacuations, and raiſe the weak and languid Motions; but we have been careful not to throw the Patient into a Sweat, and thereby induce a Diſpoſition to a ſlow Fever.

Bleeding

Bleeding has been good in *plethoric* Bodies, and in thoſe who have been accuſtomed to *Hæmorrhages*; on the contrary, if the Patient is low or weak, Bleeding is hurtful.

Gentle Vomits are uſeful by Way of Prevention, and in the very Beginning of the Diſeaſe; but in the Progreſs and State, have had a bad Effect.

Bliſters have been greatly praiſed in the State of the Diſeaſe, when there has been a Dilirium, a *Sopor*, and Convulſions, being applied to the Neck.

We reject all Opiates and ſoporiferous Medicines, on account of the Pulſe and Want of Strength, becauſe they retard the Excretions, iucreaſe the Malignity, and ſo haſten Death.

The Medicines I uſe are Elder Flower Water, that of Limes, Elms, Roſes, of the Tops of *Scordium*, *Scabious*, and *Carduus Benedictus*; as alſo Syrups of Citrons, Pomegranates, and the Juice of Roſes; Powders of Mother of Pearl, diaphoretic Antimony, Crabs Eyes, Amber, *Terra Sigillata*, burnt Hartſhorn, pure Nitre; *Alexipharmics* are, Camphire, Eſſence and Extract of *Scordium*, *Vincetoxicum*, the *Bezoardic* Spirit and Tincture, the Eſſence or Spirit of Vitriol, and dulcified Spirit of Nitre; my Moiſteners, the Decoction of *Scorzonera*, Shavings and Jelly of Hartſhorn; my Analeptics, Orange-Flower Water, freſh Oil of Citrons, with Sugar, Confection of Alkermes, and my *Balſam of Life*; my *Antiſpaſmodics*, Eſſence of Caſtor, Cinnabar, and ſuccinated Spirit of Hartſhorn.

In the Beginning of the Diſeaſe, I uſe a Bezoardic Powder of Nitre, and a little Camphire, often repeated; in the Progreſs and State of it, I adviſe a Mixture of temperate Waters, *Diaphoretics*, *Analeptics*, *Antiſpaſmodics*, and cordial Bezoardic Powders, with a little Juice of Citrons. In the Drink I put Nitre, or philoſophic Spirit of Vitriol, or ſulphurated *Clyſſus* of Antimony to keep the Body open. I alſo give Drink of the filtrated Decoction of Hartſhorn, and Root of *Scorzonera*, either hot or cold. About the critical Day I give gentle *Alexipharmics*, with Things to promote Sweat, when Nature ſeems to tend that Way.

This is the beſt and ſureſt Method of Cure, as I have tried a hundred Times. But if the Vomiting is too great, with an Anxiety of the *Præcordia*, and profuſe *Diarrhœas*, accompanied with Gripes, I apply outwardly *Venice* Treacle, expreſſed Oil of Nutmegs, Camphire, Oil of Cloves, and Balſam of *Peru*, mixt together, to the Region of the Stomach. If a *Diarrhœa* exhauſts the Patients too much, I give a nitrous bezoardic Powder, with a little Camphire, and *Theriaca Cœleſtis*. In a Phrenſy and acute Pain in the Head, I adviſe the external Uſe of Cam-

phire and Spirits of Wine, and *Sal Ammoniac*, with Oil of Rue and Lavender. If the Body is coſtive, with Gripes, I preſcribe lenient Clyſters, or ſuch as are made entirely of Oil. To raiſe the Strength, I allow ſpirituous Things, ſuch as comfort and are aromatic, but they muſt be externally applied to the Pulſes, or Pit of the Stomach, or Noſtrils. To quench Thirſt, I adviſe an Electuary of Muſcovado Sugar, and dulcified Spirit of Nitre. HOFFMANN.

Huxham obſerves, that Bleeding, where there is a Redundance of Blood, is proper, nay, neceſſary, in the ſtrong and plethoric, which ſhould be performed as early as poſſible. A quick, tenſe Pulſe, ſharp Heat, great Difficulty of Breathing, Palpitation of the Heart, and violent Pain of the Head and Back, evidently demand it. But much leſs Blood ſhould be taken off than in a *Peripneumony*, which often makes its Attack much in the ſame Manner: Yet, the ſudden Weakneſs, great Dejection of Spirits, Trembling of the Hands, Paleneſs and Crudity of the Urine, together with the Abſence of a Cough, and Heat of the Breath, which attend petechial Fevers, diſtinguiſh the one from the other. The Blood in malignant Fevers is of a much looſer Contexture, and ſofter Conſiſtence, than that of *Pleuritics*, or *Peripneumonics*.

That this Diſeaſe affects the Blood, but primarily the Animal Spirits, appears from the ſudden Damp, Tremblings, and great Dejection of Spirits. Now the Nerves and Animal Spirits being infected by the contagious *Miaſmata*, do not ſufficiently and regularly actuate the muſcular Fibres and Veſſels; whence ariſe great Debility, and too weak a Vibration of the vaſcular Syſtem; and hence the Blood, in ſome Places, runs into grumous Concretions, and in others is quite diſſolved. But though Bleeding may be proper at firſt, a ſubſequent one may be pernicious, for the firſt Blood frequently appears florid, but that which is drawn twenty-four Hours after, is commonly livid, black, and too thin; at the third Time it is livid, diſſolved, and ſanious; at leaſt this is frequently the Caſe in malignant, petechial Fevers. The Pulſe ſinks oftentimes ſurprizingly after a ſecond Bleeding, nay, ſometimes after a firſt.

Nature, many Times, ſtrives in vain to diſcharge the irritating Matter, by Vomit, without the Aſſiſtance of Art, and therefore ſomething to promote it will render it much eaſier, which may be done by an Infuſion, or Decoction of *Ipecacuanha*, or *Oxymel Scilliticum*, with a ſlight Infuſion of Camomile Flowers. If, after this, the Vomiting continues, give a little *Venice* Treacle in a Mixture of Salt of Wormwood, Juice of Lemons, Mint-Water,

Water, *&c.* and apply a Cataplasm of *Species Aromaticæ* with *Theriaca*, which generally succeeds.

The *Primæ Viæ* should be unloaded by very gentle Methods, such as Clysters of Milk, Sugar, and Salt; Laxatives of Manna, Cream of Tartar; *Glauber*'s purging Salt, Tamarinds, and Rhubarb; by such Means a Puke, or Stool or two may be promoted, at any Time of the Fever, when indicated by a nauseous bitter Taste in the Mouth, Sickness at Stomach, nidorous and fetid Eructations; or by too great Costiveness, tumid *Abdomen*, *Borborygmi*, griping Pains, *&c.*

When there are Signs of a Redundancy of the Bile, it should be forthwith discharged by Vomit or Stool, as Nature points out, which is often succeeded by an amazing Change for the better, where an inexpressible Anxiety, Load on the *Præcordia*, perpetual Sickness, Eructation, and *Singultus* had preceded. The extreme Foulness of the Tongue, Sickness, and Load at the Stomach, with a loathsome, bitter Taste, and horribly offensive, stinking Breath, and Eructations, show the Condition of the Stomach; and the abominably fetid, black, bilious Stools, the Necessity and Advantage of the Discharge.

Between the seventh and fourteenth Days Nature endeavours to relieve herself by Vomit, or more frequently by loose Stools; then I give a gentle Laxative the eighth and ninth Day, unless I find some Eruption appearing, or a kindly Sweat forbid it. Till this Time I seldom use any Kind of Purgative, except a little Manna, Cream of Tartar, or the like, at the very Beginning; but I order an emollient, laxative Clyster every second or third Day, as there may be Occasion. I repeat the Laxative from Time to Time, as the Symptoms indicate, and during the Operation carefully support the Patient with proper cordial Diet Drink, and Medicines; when Nature over-acts her Part, and runs into a profuse *Diarrhœa* or Dysentery, it ought to be restrained by proper astringent *Alexipharmics*, such as *Theriaca Andromachi*, *Confect. Fracastor.* Tincture of Roses, red Wine mulled with Cinnamon, *&c.* but, above all, if the Case be very urgent, by an astringent Clyster of *Confect. Fracast.* or *Theriaca Andromachi*, with a small Quantity of Decoction of *Tormentil*, red Roses, or *Japan* Earth. But it is always of dangerous Consequence to suppress a critical *Diarrhœa* too soon, and therefore it will be necessary to give a small Dose or two of Rhubarb first of all. A *Diarrhœa*, at the first, is prejudicial, if profuse, but at the State salutary; and it is certainly so when attended with a gentle breathing Sweat, or warm Moisture of the Skin.

But the constant and grand Effort of Nature, is to throw off the putrid Malignancy through the Pores of the Skin; for I never

never ſaw any of theſe Fevers carried off till more or leſs of a Sweat appeared. If it be a breathing Sweat at the State of the Diſeaſe, and the Pulſe grows more open, ſoft, and calm a little before and during its Continuance, it is always ſalutary; but if it be profuſe, cold, clammy, or partial, about the Head and Breaſt only, the Sign is not good. Profuſe Sweats in the Beginning are generally pernicious, eſpecially if a *Rigor* ſupervenes.

Sweats ſhould never be forced by violent hot Medicines, Regimen, *&c.* plentiful ſubacid Diluents will be ſufficient, and gentle cordial Diaphoretics.

Thoſe of ſtrong Fibres, and rich, denſe Blood, do not require ſuch warm Medicines as the feeble and phlegmatic. But as the Blood and Humours tend to Diſſolution, Stagnation, and Putrefaction, vegetable and mineral Acids are highly ſerviceable, and the ſubaſtringent *Alexipharmics* are very uſeful. But I am very certain, that the Uſe of volatile, oleous Salts and Spirits is very hurtful, as they augment the putreſcent State of the Humours, and are ſo many Spurrers to ſwifter Deſtruction; this they will do in the moſt healthful; even the peſtilential *Miaſmata* themſelves are probably nothing elſe but highly volatilized and ſubtilized animal Salts.

But *Pringle* is of a contrary Opinion; nor is he ignorant that the volatile Salts have been objected to, as a ſtrong Alkali, and that they conſequently diſpoſe Humours to Putrefaction; for we muſt conſider, adds he, that Alkalis and putrid Subſtances are very different; inſomuch, that I find, from Experiments, out of the Body, the *Salt of Hartſhorn* is even *antiſeptic*, ſince it preſerves animal Subſtances from Putrefaction.

Huxham obſerves, that Bliſters haſtily and improperly applied, in the Beginning, when the Fever runs high, are improper, and tend to promote the Diſſolution and Putrefaction of the Blood; but when the Fever is on the Decline, when the Solids grow turpid, the Circulation languid, the Spirits *effæte*, the Sick comatous, they are of exceeding great Uſe, and the Patient ſhould drink freely of Whey, Emulſion, or ſome other ſubacid or demulcent Liquor.

I uſe *Camphire* as a Corrector of the Acrimony of Cantharides, for it blunts the *Spiculæ* of the Salts by an exceeding fine volatile, vegetable Sulphur. But it is of greater Uſe in promoting a *Diaphoreſis*, or an eaſy Sweat, and brings on a Compoſure of the Spirits, and an eaſy Sleep, when Opiates fail: when joined with an Opiate it is the moſt certain Sudorific in Nature, and the *Elixir Aſthmaticum* is, in this reſpect, a moſt noble Medicine.

As

As Acids and Subaſtringents are given to preſerve the Craſis of the Blood, the Tone of the Veſſels, and to prevent the farther Putrefaction of the Humours, Diaphoretics, eſpecially Camphire, ſhould be joined with them.

I have uſed the following Preſcription of the *Bark* for many Years with Succeſs, not only in intermittent, and ſlow nervous Fevers, but alſo in the putrid, peſtilential, and petechial, in the Decline, though the Remiſſions have been very obſcure; but if the Patient is coſtive, or hath a tenſe or tumid *Abdomen*, I always premiſe a Doſe of Rhubarb, Manna, or the like.

℞. *Cort. Peruvian. pulv.* ℥ij. *Flaved. Aurant. Hiſp.* ℥iſs. *Rad. Serpent. Virgin.* ʒiij. *Croc. Anglic.* ℈iv. *Coccinel.* ℈ij. *Sop. Vin. Gallic.* ℥xx. *M. f. Infuſio clauſa per Dies aliquot (tres ſaltem quatuorve) deinde coletur.*

Of this I give from ʒj. to ℥ſs. every fourth, ſixth, or eighth Hour, with ten, fifteen, or twenty Drops of *Elixir Vitrioli*, out of any appropriated Draught, or Diluted Wine. The above Compoſition tends to ſtrengthen the Solids, to prevent the farther Diſſolution and Corruption of the Blood, and in the Event to reſtore its *Craſis*.

With this View, I alſo recommend a generous red Wine, as a moſt noble, natural, ſubaſtringent Cordial, which is of high Service in the State, but more eſpecially in the Decline of theſe Fevers, acidulated with the Juice of *Seville* Oranges, or Lemons, as alſo with Cinnamon, the Rind of *Seville* Oranges, and the like, to which a few Drops of *Elixir Vitrioli* may be added. *Rheniſh* and *French* white Wines, when diluted, are alſo a moſt ſalutary Drink, and generous Cyder little inferior to either.

Pringle ſays, in the Cure of the Camp and Gaol Fevers, it will be beſt to diſtinguiſh it into three Periods: The firſt is, when the Perſon is able to go about; the ſecond begins with his Confinement, when the Fever is apparent, the Pulſe full and quick, and the Head much affected; and the third, when the Pulſe ſinks, and a Stupor comes on, with other Symptoms.

In the *firſt Period* it is beſt to remove the Patient out of the foul Air, and if that cannot be done, it is to be purified by Fires, by opening Doors and Windows, burning Incenſe, or the like. The Curtains ſhould be undrawn, and a free Ventilation procured.

After this, I give a Vomit of *Ipecacuanha*, and after that a moderate Bolus of *Theriaca*, with ten Grains of *Salt of Hartſhorn*, and ſome Draughts of Vinegar-Whey, which is to be repeated the next Night, without the Vomit; before which, if the Perſon is plethoric, or begins to have a greater Degree of Fever, it will

be

be neceſſary to take away Blood. And as the Cure depends upon a free *Diaphoreſis*, it will be neceſſary to waſh the Feet and Hands with warm Vinegar and Water.

In the *ſecond Stage*, when the Fever is manifeſt, with a full Pulſe, it will be always proper to begin with a ſmall or moderate Bleeding. When the Symptoms are high, a plentiful Evacuation ſeems requiſite; yet large Bleedings have been generally fatal, by ſinking the Pulſe and bringing on a Stupor or Delirium. The Patient is generally worſe from a ſecond Bleeding, unleſs the Lungs are inflamed.

If the Head only ſuffers, it is beſt to bleed by Leeches at the Temples; but in a Delirium, with a ſunk Pulſe, Leeches do no good, and Bleeding is pernicious; many have recovered without, but very few who have loſt much Blood.

Vomits are to be cautiouſly uſed; if the Stomach be foul, an Emetic is proper in the Beginning of the ſecond Period. When the Fever is fixed, and a Vomiting ſupervenes, which is always a bad Symptom, an Emetic will be dangerous: Draughts of Camomile Tea are the moſt that can be given; and then Medicines that quiet the Spaſms; to which ſhould be added a Clyſter, to determine the Humours downward.

The next Care is to promote a *Diaphoreſis*, which muſt be attempted by the milder Sudorifics. The *Contrayerva Powders*, with *Nitre*, are ſafe, but ſcarce efficacious; much Dilution oppreſſes the Stomach, and Volatiles alone heat too much, neither will Acids do alone, but the two combined are powerful, and therefore when a Sweat is to be moved, the beſt Medicine I know of is *Spiritus Mindereri*.

If the Patient can be brought to a thorough Sweat, with a riſing Pulſe, it may prove critical, though it muſt never be forced; but if ſpontaneous and profuſe in the Beginning, with a low Pulſe, it muſt be checked. Throughout the ſecond Stage, Acids are neceſſary. Coſtiveneſs is to be prevented, by emollient Clyſters. Bliſters at this Time are always without Succeſs. Opiates are dangerous, for if they do not ſweat, they fix the Delirium. When the Pulſe ſinks with a *Diarrhœa*, they are neceſſary, and ſome Drops of *Tinctura Thebaica* may be added to the Medicines of the third Stage.

The *third Period* is the longeſt, in which the Pulſe ſinks, the Stupor increaſes, and the Spots often appear. This happens about three or four Days after the Fever is formed. If the Patient has been once or twice largely blooded at firſt, the Diſeaſe uſually paſſes over the ſecond State, inſomuch that his Pulſe ſinks at once, and he becomes delirious.

Our

Our moſt general Remedies have been an *alexipharmic* Decoction, and a cordial Mixture of Wine given alternately; the Patient ſhould be never above two Hours without taking ſome of them; a Rule abſolutely neceſſary to be obſerved.

The *Alexipharmic* was three Drams of the *Bark*, and alſo of the *Radix Serpentaria*, in a Pint of Water, boiled down to half, with the Addition of an Ounce and a half of ſtrong Water, and the whole Quantity was to be taken in thirty-ſix Hours, or two Days at moſt, which ſupports the Strength, and promotes a *Diaphoreſis*; and when the Fever is gone, it is a Preſervative againſt a Relapſe.

The Cordial conſiſts of a moderate Quantity of a ſpirituous Water, with a larger Doſe than ordinary of the Salts of Hartshorn, from one Scruple to half a Dram in a Day. But out of the Hoſpital there was no Reſtriction as to the Quantity of Wine, and I either omitted the Volatile, or uſed it ſparingly. It is good in great Sinkings, after unſeaſonable Bleedings, or long Want of Nouriſhment. I have ſometimes added the *Spiritus Mindereri*.

As for the Cordial, there is nothing to be compared to Wine, in the low State of the Fever. The common Men had half a Pint a Day, of the ſtrong Kind. Thoſe out of the Hoſpital had *French* Wine, of which they have drank a Quart in a Day, half of which has been undiluted. The Hoſpital Wine was ſometimes given in Whey, but commonly in *Panada*, which was their only Food. I have known ſeveral recover from the loweſt State, by the Uſe of Wine, when they have refuſed the Decoction on Account of its Taſte, taking nothing but their Panada Wine, and the volatile Cordial, every two Hours by Turns.

A *Stupor* is inſeparable from this Fever, in its low State, which in an Evening is apt to turn to a ſlight Delirium: If the Delirium is great, with a *Subſultus Tendinum*, and a Redneſs of the Eyes, there is a Preſumption of a true *Phrenitis*; then Wine, and other hot Medicines, aggravate the Symptoms; at which Times Bliſters do the greateſt Service. But in the ordinary *Stupor*, and ſunk Pulſe, they are not ſo efficacious as *Sinapiſms* applied to the Soles of the Feet.

When the Diſtemper is over, or changes its Shape, and the parotid Glands are ſuppurated, they are to be opened as ſoon as they contain Matter, without waiting for an apparent Fluctuation, or even Softneſs of the Tumor; for before the Inciſion, the *Pus* is ſo viſcid, as to feel as hard as if there was no Suppuration begun.

When

When the Fever is over, the common Complaint is a Want of Reſt, a *Vertigo*, a Deafneſs, and other nervous Symptoms, the Conſequence of great Lowneſs. The Remedies are, the *Pil. Matthæi* at Night, with *Analeptics*, and Medicines of the ſtrengthening Kind. When the Pulſe is ſlow, about ten Grains of *Aſa Fœtida*, twice a Day, has a good Effect; but if there is any Appearance of an hectic Fever from an inward Abſceſs, the Caſe is to be treated accordingly.

If the Patient falls into an intermittent Fever, the *Bark* is a ſure Remedy. PRINGLE.

After all, there is a more compendious Method of treating Fevers of this Kind, which I am ſurprized Phyſicians have not been more frequent in the Uſe of, I mean antimonial Remedies, whoſe *Effluvia* are of ſuch prodigious Efficacy, that a ſingle Scruple of *Crocus Metallorum* will vomit Thouſands of Perſons; I know, that great Danger has been objected, eſpecially as to the Doſe, but in deſperate Caſes, this ought to be of no Weight; and there are Preparations of Antimony, which may be managed with as great Certainty as any other Medicine whatever. I have been led to this Way of Thinking, from the Advantage of Dr. *James*'s Powders in Fevers of this Kind; the Virtue of which, I am fully perſuaded, does not conſiſt in the Evacuations alone, but in changing the Acrimony into a *Tertium quid*, and thereby rendering it fit to be expelled from the Body. I have had the ſtrongeſt Proof of its Succeſs upon theſe Occaſions. Beſides, it is well known, that the learned Body of Phyſicians at *Edinburgh* have taken a Preparation of Antimony into their Diſpenſatory, whoſe admirable Certainty in the Cure of bloody Fluxes is now ſufficiently known. And if Phyſicians would make Experiments of this Kind, in a cautious Manner, it would ſerve to wreſt the Practice of Phyſic out of the Hands of Quacks, with whom this opulent City is over-run.

Upon the whole, it will be proper to add what *Hoffmann* aſſerts, that he has been a Practitioner forty-ſix Years, and has obſerved this Fever to go off ſeldom by a Sweat, or *Hæmorrhage*, but frequently by a *Diarrhœa*, on the ſeventh, ninth, or eleventh Day, and that there is nothing more pernicious than for a Patient to be troubled with a *Diarrhœa* about the Beginning, or to ſtop a Flux of the Belly, when it is critical; therefore the Flux is to be promoted on critical Days, from the ſeventh to the fourteenth, and not before; and that there is nothing worſe than Purges, which act by a cauſtic Quality, even not excepting *Senna*. But *Manna* and Cream of Tartar are beneficial, given in a ſufficient Doſe.

From

From a Journal of the Writings of moſt Authors, ancient and modern, who have treated of *malignant Fevers*, it will be a very difficult Matter to form a juſt Notion of this Diſeaſe. The Truth is, they abound with ſuch diſcordant, and obſcure Accounts of it, that all we can make out from them ſeems to amount to no more, than that the Nature of a malignant Fever may ſtill paſs for a Problem unſolved.

Nevertheleſs, I cannot think it a Matter very extraordinary difficult to form an adequate Notion of it, and to delineate its Character, provided a due Attention be given to the Phænomena which it preſents. However abſurd the Term *Malignity* may really be, we are yet neceſſitated to adopt it, or riſque the Cenſure of aboliſhing a Cuſtom which its Antiquity has rendered reſpectable; and thus we are continually making a ſcandalous Uſe of it, applying it not only to Fevers, accompanied with alarming Symptoms, but even to ſuch as have degenerated through a wrong Treatment. SYDENHAM was not, perhaps, much wide of the Mark, when he pronounced that the Word *Malignity*, as relative to Diſeaſes, had been more fatal to Mankind, than the Invention of Gunpowder. Thoſe who firſt introduced it, applied it to thoſe Fevers only, wherein Nature ſeems to be oppreſſed, and the State of the Pulſe and of the Symptoms are not anſwerable to the Violence of the Diſorder; *quaſi clancularias vitæ ſtrueret inſidias*; accordingly we are taught, by daily Experience, that Death comes on in this Kind of Fever, when leaſt expected. It is, however, a miſtaken Notion, that *all malignant Fevers* are of this Character. The Progreſs of ſome of them is regular and open, without any fallacious Symptoms, as of that denominated *Caſtrenſis vel Hungarica*, and in ſeveral others ſufficiently manifeſted by the Degree of the Heat, the Velocity of the Pulſe, and the Violence of the Symptoms; and theſe Fevers ought not to be, as they have been, by ſome Writers of the firſt Rank, confounded with the *ardent* Fever, which is of ſhorter Duration; the *malignant*, however violent, never terminating before the twentieth Day, and almoſt always later. Add to this, that it is generally epidemic and contagious, like the Peſtilence, whence many Writers range both theſe Diſeaſes under the ſame Claſs. LIEUTAUD.

Monro obſerves, that the *Malignant Fever* begins variouſly in different Subjects; for the moſt Part with Cold and Shivering, Pain in the Head, and the other Symptoms commonly deſcribed as peculiar to this Fever. In ſome it begins with a ſharp Pain of the Side, or other Parts, attended with acute inflammatory Symptoms; in others it puts on the Appearance

of

of the common, low, or nervous Fever, for a Day or two. Blood drawn in the Beginning from ſome Patients does not ſeem much altered; from others it throws up a ſtrong inflammatory Buff; and it is likewiſe a Remark of *Huxham*, that the Blood ſhall appear buffy or ſizy in the Beginning of malignant Fevers; and yet drawn two or three Days after ſhall be quite looſe, diſſolved, and, as it were, ſanious.

The Reaſon of this Difference of Symptoms in the Beginning, and of theſe different Appearances of the Blood, ſeems to be, that ſuch Perſons as labour under Pleuriſies, low, or other Fevers, being brought to Hoſpitals or other Places where the malignant Fever is frequent, have their original Diſorders changed into this Fever by breathing a foul infected Air, and by their Communication with thoſe ill of the Fever, and of Fluxes: Sometimes a mere Acrimony of the Blood, ſet in Motion by a ſupervening Fever, determines the Diſorder to be of this Kind; and I have always obſerved, that thoſe are moſt apt to catch this Fever, whoſe Conſtitutions have been broke down by previous Diſorders.

As to to the different Forms of this Fever, ſome have only a Quickneſs of the Pulſe, attended with a ſlight Head-ach and Sickneſs, Whiteneſs of the Tongue and Thirſt, and a Lowneſs and Languor; which continue for a Week or more, and then go off, either inſenſibly, or with a profuſe Sweat, ſucceeded by a plentiful Sediment in the Urine. Moſt of thoſe who fall into profuſe kindly-warm Sweats, recover, the Sweat carrying off the Fever; ſuch Sweats continue for twelve or twenty-four Hours, and ſometimes for two, three, or four Days. In thoſe who have the Fever in this ſlight Degree, *Petechiæ* ſeldom appear; and it is only known to be this Sort of Fever by the other Symptoms, and the malignant Fever being frequent at the ſame Time in Hoſpitals, Priſons, *&c.* *Pringle* very juſtly obſerves, that theſe low Degrees of this Fever are hardly to be characteriſed, and are only to be diſcovered in full Hoſpitals, by obſerving Men languiſh; though the Nature of the Illneſs, for which they are admitted, ſhould ſeem to admit of a ſpeedier Cure.

For the moſt Part the Fever appears with more violent Symptoms; the Tongue becomes parched and dry, and more or leſs of a Delirium invades, attended with the other peculiar and well known Symptoms.

When the *Petechiæ* appear, they come out on the fourth, fifth, ſixth, or ſeventh Day; ſeldom after the eleventh or twelfth. *Ramazzini* mentions a Petechial Fever which had been frequent for three Years at *Modena*; in which the *Petechiæ*

chiæ appeared only on the fourth or ſeventh Days, and almoſt all thoſe died in whom they appeared on the firſt Day. Theſe Spots came out firſt on the Neck, the Back, and Breaſt; and it was obſerved, that none eſcaped unleſs the Spots extended themſelves as far as the Nails of the Toes, vaniſhing by Degrees on the upper Parts. The *Petechiæ* I have obſerved to appear moſtly on the Breaſt, Back, Arms, and Legs, and ſometimes, though rarely, on the Face; either like ſmall diſtinct Spots of a reddiſh Colour, or the Skin looks ſometimes as if it were marbled, or variegated, as in the Meaſles, but of a Colour more dull and lurid. As they begin to diſappear, they incline to a dun, or brown Colour, and look like ſo many dirty Spots. I never ſaw them riſe above the Skin, nor ever diſcerned any miliary Eruptions in this Fever: However, we are not hence to conclude, that miliary Eruptions are never obſerved in Fevers of this Kind. *Huxham*, *Haſenohrl*, and *Lind*, and many other good Practitioners, mention their having ſeen them.

Many have no *Petechiæ* through the whole Courſe of their Diſorder; but in thoſe that are very bad, the Countenance looks bloated, and the Eyes reddiſh, and ſomewhat inflamed; and though the Skin be commonly dry, yet the Perſpiration from the Lungs is very ſtrong. By theſe Circumſtances one may frequently diſcover that the Patient labours under a malignant Fever, without aſking any Queſtions.

When Perſons are ſeized with a Fever ſuſpected to be of the malignant Kind, our firſt Care ſhould be to lay them in airy Places, ſeparate, as much as poſſible, from other People, and keep them extremely clean; put them on a low Diet, and allow as much Barley, or Rice-Water, as they chooſe to drink, which may be acidulated with *Spir. Vitrioli.*

For the firſt two or three Days it is ſeldom to be diſtinguiſhed with Certainty, that the Fever is of the malignant Kind, even though there be Reaſon to expect it. The Pain of the Head, the Fullneſs and Quickneſs of the Pulſe, often leads us to the taking away more or leſs Blood, which the Patient bears eaſily, and for the moſt Part it gives Relief. *Huxham* ſays, bleeding to ſome Degree is moſt commonly requiſite, nay, neceſſary; but then he obſerves, that the Pulſe in theſe Caſes ſinks ſurprizingly after a ſecond Bleeding, and ſometimes after the firſt: And *Pringle* takes Notice, that in the ſecond Stage of the Diſorder, large Bleedings have generally proved fatal, by ſinking the Pulſe, and bringing on a Delirium. I ſeldom repeat this Evacuation where I ſuſpect a Malignancy in the Fever, unleſs a pleuritic Stich, an acute Pain of the

Bowels, or ſome other accidental Symptom requires it; or the Patient is ſtrong, and there be evident Symptoms of Fullneſs, immediately before I intend giving the Bark; for under other Circumſtances, if bleeding was repeated, and other Evacuations uſed freely, I always obſerved that it did Harm, and was apt to ſink the Patient too much.

After bleeding, if the Patient is coſtive, or complains of Gripes, I give a Doſe of Rhubarb, or Salts, or a laxative Clyſter; but where there is much Sickneſs in the Stomach, I give a gentle Emetic in the Evening, and the Purge the next Morning. *Pringle* adviſes giving a Vomit, by Way of Prevention, on the firſt Appearance of the Symptoms, and at Night, to force a Sweat by a Dram of *Theriac*, with ten Grains of *Sal. Volat. C. C.* and ſome Draughts of Vinegar Whey, and to repeat the ſame the following Night; and ſays, he has often ſeen thoſe Symptoms removed which he apprehended to be Forerunners of this Fever received by Contagion; but previous to Vomits, or Sweats, if the Perſon be plethoric, it will be neceſſary to take away ſome Blood. If, in the Courſe of the Diſorder, the Sickneſs and Nauſea return, attended with Griping and Coſtiveneſs, or very fœtid looſe Stools, I repeat the Rhubarb, *&c.* and give a gentle Opiate in the Evening, after the Operation.

After Evacuations, if the Pulſe keeps up, I commonly give nothing but the ſaline Draughts, with the *Pul. Contrayerv.* or ſome temperate Medicine, for the firſt Day or two. As ſoon as I can diſtinguiſh the Fever to be of the malignant Kind, and that the Pulſe rather ſinks, I join ſome of the Cordials with the ſaline Medicines, and allow the Patient more or leſs Wine, according to the Degree of the Fever. *De Haen* has found fault with *Pringle* and *Huxham*, for adminiſtring cordial Medicines, and Wine, in the low State of this Fever; but nothing has anſwered ſo well in all my Practice, as theſe Remedies under ſuch Circumſtances; and I have frequently ſeen every Symptom changed for the better by their Uſe; and even when I gave the Bark, in the Manner recommended by *De Haen*, I often found it neceſſary to join the free Uſe of Wine, Cordials, and Bliſters, in order to ſupport the Patient's Strength. *Petrus a Caſtro*, in his Account of a petechial Fever, which was frequent at *Verona*, ſays, that the Sick had a great Thirſt and an Averſion to Meat, but all of them had the ſtrongeſt Deſire to Wine, and were perpetually aſking for it; even thoſe who at other Times were very temperate; and that this proceeded from an Inſtinct of Nature, which wanted ſomething to reſtore the Strength. *Huxham* tells us, that he

cannot

cannot but recommend a generous red Wine, as a moſt noble, natural, ſub-aſtringent Cordial, and perhaps Art cannot ſupply a better; and is confident that ſometimes at the State, and more frequently in the Decline of putrid Fevers, it is of the higheſt Service. If the preventive Method does not ſucceed, *Lind* adviſes to have Recourſe to Bliſters, and ſays, that Sixteen out of Twenty will next Morning be free of the Fever, provided the Source of their Infection be not highly poiſonous, or from a violent Contagion.

After reading the Treatiſes of *De Haen* and *Haſenohrl* on this Fever, I reſolved on giving the Bark in large Quantities, and found it to anſwer their Recommendation. It is, indeed, long ſince the Bark has been given in malignant Diſorders; though I do not know that any Body gave it in this Fever before theſe two mentioned Gentlemen, to the Amount of an Ounce *per* Day. *Ramazini* mentions its having been tried in the petechial Fever of the Years 1692, 3, 4. And in a Treatiſe on the Plague, publiſhed at *Peterſburgh*, in 1750, we are told, that in the *French* Tranſlation of the *Philoſophical Tranſactions* for the Year 1732, it is ſaid, that Mr. *Amyand* informed the Academy of Surgery at *Paris*, that Mr. *Ruſhworth*, Surgeon, had wrote to Sir *Hans Sloane*, that when he was Surgeon to a Ship in 1694, he had cured ſome Men ill of the malignant Fever, attended with peſtilential Buboes, by Means of the *Peruvian* Bark. *Huxham* has recommended a Tincture of Bark, and *Pringle*, a ſtrong Decoction of it in theſe malignant Fevers.

There is one thing to be obſerved with reſpect to malignant Fevers, which is, that if ever they appear in a large crowded Hoſpital, unleſs we can thin the Wards, procure a free Circulation of Air, and keep the Hoſpital and Sick extremely clean, the Fevers continue to ſpread, and great Numbers will die; and even the moſt efficacious Remedies will have little or no Effect: And that when once the Infection is grown ſtrong, it requires the greateſt Care, and ſome Time before it can be entirely got the better of.—And that, if a great Number of Men, ill of this Fever, be kept in the ſame Ward, they will help to keep up the Infection.

Many Patients, towards the Height of this Fever, ſooner or later, have Purgings, which ſeldom prove critical; and ſome are ſeized with the Flux. A gentle Diarrhœa, ſuch as does not ſink the Patient, is commonly of Service; but if violent, or a Dyſentery comes on, the Caſe is always dangerous; for whatever ſtops the Flux increaſes the Fever; and if the Purging or Flux continues, it ſinks the Patient.

In this Fever it is no uncommon thing for the Patients to vomit Worms, or to paſs them by Stool, or to have them come up into their Throat and Mouth, or ſometimes in their Noſtrils, while they are aſleep in Bed, and to pull them out with their Fingers. *Pringle* ſeems to embrace *Lanciſius*'s Opinion, and believes that theſe Worms are not the Cauſe of the Fever; but being lodged in the Inteſtines before the Fever comes on, they are annoyed at the Increaſe of the Heat, and the Corruption of the Humours, and ſo they begin to move and ſtruggle to get out. This ſeems evidently to be the Caſe with many Patients; though in ſome the Worms ſeem to give Riſe to the Fever, which the bad State of the Patient's Humours, or the infected Air of Hoſpitals determine to be of this Kind. In many the Fever leſſens or goes off entirely ſoon after, and they are no more affected with Symptoms of Worms. But ſome, notwithſtanding, are ſubject to frequent Sickneſs, Pain of the Stomach, and Uneaſineſs in the Bowels, and diſcharge ſome Worms from Time to Time. Others have frequent Relapſes into Fevers, which ſeems to be owing to the Irritation of theſe Inſects.

As ſoon as I obſerve a Patient to be troubled with Worms, if his preſent Situation does not prevent it, I give twenty-five or thirty Grains of Rhubarb, with five or ſix Grains of Calomel; and if there is much Sickneſs, I likewiſe give an Emetic, which, in ſome Caſes, brings up two or three Worms of the round Kind, and gives great Relief. But where the Fever is violent, I am obliged to neglect this Symptom of Worms for the preſent; and when the Fever is over, if there ſtill remains any Symptom of Worms, I give the purgative Medicine once or oftener, and in the Intervals give the *Pulvis Stanni*, or an Infuſion of Camomile Flowers; and in ſome Caſes oily Medicines. By theſe Means moſt Patients get well, and recover their Health, and ſeem freed, at leaſt for the preſent, from theſe troubleſome Inſects; though ſome continue to complain of Sickneſs, and other Worm Symptoms, for ſome Time afterwards.

In malignant Fevers many complain of a Dyſury, and ſome of a Suppreſſion of Urine, eſpecially towards the Decline of the Fever; and others of a Scalding and Pain in making Water, though without any venereal Complaint. Decoctions of Gum Arabic, with ſome of the *Spir. Nit. dulc.* and oily Mixtures, and Opiates, commonly give immediate Relief, and ſoon remove the Complaint.

One of the firſt ſalutary Symptoms which moſt generally appears upon thoſe who are recovering, is a Dulneſs of Hearing;

ing, or Deafneſs, which comes on about the Height of the Fever, and continues a longer or ſhorter Time, generally till the Fever is entirely gone, and ſometimes for a conſiderable while afterwards. *Riverius* takes Notice, that according to *Hippocrates*'s Doctrine, Deafneſs is a very dangerous Symptom in the Beginning of acute Diſorders, though it be a good Omen, and portends Health, when it does not appear till the Height of Fevers, eſpecially of the malignant Kind; and adds, that he himſelf has a thouſand Times obſerved, when this Symptom of Deafneſs came on at the Height *(in Statu)* that thoſe labouring under this Fever have recovered. For the moſt Part, I do nothing for this Complaint, which goes off as the Patient recovers his Strength. When it continues long, Bliſters applied behind the Ears, or on the Neck, and waſhing the *Meatus auditorius* with an emollient Decoction, wherein a ſmall Quantity of Soap is diſſolved, proves of Service.

Swellings of the parotid Glands appear in many Subjects, towards the Decline of the Fever, which come to Suppuration, and prove critical. But although theſe parotid Swellings are in general ſo favourable, we are not to imagine that this will always be the Caſe: For *Riverius*, though he ſpeaks of their proving for the moſt Part critical; yet he tells us, that in the Year 1623, this Fever was epidemical at *Montpellier*, and that one Half of the Sick died; and particularly, that moſt of thoſe who had Swellings of the parotid Glands appearing about the ninth or eleventh Day, were carried off within two Days of their Appearance: And, at length, concluding that the Cauſe of their Death was owing to a greater Quantity of morbid Matter in the Blood than the Part was able to contain, and that Evacuations by bleeding and purging were the only Remedies likely to give Relief, he ordered three Ounces of Blood to be taken from a Patient, notwithſtanding he was ſo low, that the Surgeon was afraid he would have died in the Operation: The Pulſe roſe on bleeding, and he ordered four Ounces more to be taken in three or four Hours afterwards: The Pulſe roſe ſtill more, and he ordered a Doſe of Sena and Rhubarb to be taken next Day, and the Patient recovered. He adds, that all thoſe who were treated in this Manner, got well.

As ſoon as theſe Swellings of the parotid Glands appear, I endeavour to bring them forward to Suppuration, by the Application of emollient Cataplaſms, gummous Plaiſters, and have them opened as ſoon as a Fluctuation of Matter is to be felt, and afterwards treat them as common Abſceſſes. *Riverius* very juſtly obſerves, that when ſuch Tumours increaſe in ſuch a Manner as to endanger Suffocation, they ought to be opened

before they come to Maturation; and *Pringle* directs not to wait for a Fluctuation of Matter, but to open the Abſceſs as ſoon as it can be ſuppoſed to have formed.

Sometimes critical Buboes are formed on the Groins and Armpits in this Fever. This Symptom is taken Notice of by Authors, but does not ſeem to be ſo frequent as many of them would make us believe. Neither *Huxham* nor *Pringle* mention their having ſeen ſuch Buboes, and *Lind* ſays he never ſaw them till the Beginning of the Year 1763. For my own Part three are all I ever met with, and thoſe in the Groin.

Sometimes the Patients complain towards the Decline of the Fever, of a Pain all along the ſpermatic Chord, and ſoon after a Swelling of the Teſticle appears: *Hippocrates* takes Notice of this Symptom in ſome Fevers. By bleeding and applying emollient Fomentations and Cataplaſms, and bathing the pained Part on the firſt Attack with *Spirit. Mindereri*, the Swelling of the Teſticle may be prevented; but if the Swelling be already begun, it will moſt probably end in a Suppuration of the Scrotum or Teſticle, which will heal very kindly.

Many, while recovering from this Fever, are ſeized with an Ophthalmia, or Inflammation, for the moſt Part, of one Eye only, ſometimes of both. If the Patients are ſtrong, I bleed them, and apply Bliſters behind the Ears, and ſometimes, when the Pain is great, I lay Poultices of Bread and Milk to the inflamed Eye; which, with the Aſſiſtance of ſome cooling Phyſic, commonly removes this Complaint; though in ſome obſtinate Caſes it will be neceſſary to repeat the Evacuations, apply Leeches to the Temples, and after the acute State of the Diſorder is paſſed, to order the Eye to be waſhed frequently with the *Collyrium Vitriolicum*, or *Collyrium Saturninum*. However, it ſhould be obſerved, that if theſe aſtringent *Collyria* are uſed too ſoon they may do Hurt. If this Ophthalmia is neglected in the Beginning, the Inflammation frequently riſes to a great Height; and leaves an Obſcurity, or Film, over the Cornea, an Impediment to the Sight very difficult to remove.

Towards the Decline of theſe Fevers, and very often during the Courſe of them, ſeveral complain of Pains in their Feet and Toes, ſome of which end in Mortifications, eſpecially if the Patients lie in cold Places. The beſt Remedy I have found to be, bathing the Feet in warm Water, or warm Aromatic Fomentations; and after keeping them for ſome Time in theſe warm Liquors, to dry them well, and then rub them with the *Liniment. Saponac.* or the *Liniment. Volat.* and wrap them up in Flannel: And if any Lividneſs or Redneſs appears on the Parts, I give plentifully of the Cortex with Cordials, if

not

not contra-indicated by the other Symptoms. If Veſicles ariſe on the Part, and a Gangrene is formed, I direct the Part to be ſcarified, and proper Dreſſings, with warm Aromatic Fomentations, and Cataplaſms to be uſed.

Patients reduced very low by this Fever, eſpecially after frequent Relapſes, are ſubjects to œdematous Swellings chiefly of the Feet, towards Evening, after ſitting up all Day, which generally go off as the Sick recover their Strength; but in ſome they continue obſtinate, and extend towards the Thighs, and even all over the Body.

When ſuch Swellings, are recent, and confined to the Feet and Legs, commonly the Bark, joined to the lixivial Salts, or the *Oxymel Scillitic.* and a Purgative once or twice a Week, removes them: An Infuſion of Horſe Radiſh has likewiſe a good Effect.

When the Swellings are ſo obſtinate as to reſiſt the Force of all internal Remedies; Punctures made in the Feet, or lower Part of the Legs, are of great Benefit, by furniſhing a Drain to the Water; and Bliſters applied to the Legs. If the Punctures were made before the Patient's Strength was exhauſted, and he laboured under no other Diſorder, I never obſerved any bad Effects from them: But in Caſes of great Weakneſs, eſpecially if combined with a hectic Fever, or Purging, and the œdematous Swellings are large, a Gangrene and Death are moſt Times the Conſequence.

Putrid malignant Fevers, attended with Eruptions, are taken Notice of by *Hippocrates* and other ancient Authors: But whether they meant that particular Sort of Eruption which we now call *Petechiæ*, is uncertain, as their Deſcriptions are not clear enough to diſtinguiſh them from the Miliary and other Kinds. But ſince about the Year 1500, we have had many accurate Accounts of Fevers of this Kind, which have appeared in different Parts of the World. From all which it appears, that ſuch Fevers take their Riſe, either from ſome antecedent Acrimony of the Blood, or, what is more frequently, from ſome Source of Corruption or Contagion; from the Uſe of putreſcent animal Food, and a Want of freſh Vegetables and aceſcent Liquors; from the putrid Steams of corrupting animal Subſtances; from the moiſt putrid Vapour of low marſhy Places in Summer, where there is ſtagnating Water, which corrupts by Heat; from the foul Air of crowded Hoſpitals, Gaols, and Ships, or any ſuch like Cauſes.

When once this Fever is begun, it is obſerved to be of a contagious Nature, and, if proper Care is not taken, to affect thoſe who attend the Sick, or who live in the ſame Room, or breathe the ſame Air with them.

Of

Of the Pestilential Fever.

A *Peſtilential Fever* is a moſt acute one, ariſing from a poiſonous *Miaſma*, brought from Eaſtern Countries; and unleſs it is immediately expelled out of the Body by the Strength of the vital Motions, by Buboes and Carbuncles, it is fatal.

It differs from other contagious, malignant, and eruptive Fevers, becauſe it is the moſt acute, for it ſometimes kills on the firſt, and ſometimes on the ſecond Day. Beſides, in our Climate, it is not epidemic nor ſporadic, from a bad Way of Living, or unhealthful Air, but happens when it is moſt ſalutary, from Contagion alone. There is ſomething very ſingular in this infectious *Miaſma*; for though it is apt to ſpread at a ſtrange rate, yet it will abate by intenſe Cold, and be plainly extinguiſhed; wherefore in a cold Seaſon, and very cold Countries, it either does not appear at all, or in a very mild Degree; whereas, if the Climate is hot, it is not only moſt vehement, but moſt common.

In this, as in all other contagious Diſeaſes, the venomous *Miaſma* is ſwallowed up with the Air, and inſinuates itſelf into the *ſalival* Juice, where its Tragedy is firſt acted; whence it aſſaults the Head, Brain, Nerves, and Animal Spirits, producing a *Torpor* in the Head, a Heavineſs, a Sleepineſs, a violent Pain, a Stupor of the Senſes, a Forgetfulneſs, Inquietude, Watching, and Loſs of Strength. From the *Fauces* it proceeds to the Stomach, creating Loathing of Food, *Nauſea*, Anxiety of the *Præcordia*, a *Cardialgia*, attended with Fainting, reaching to vomit, and Vomiting itſelf. Hence it proceeds to the Membranes of the Spinal Marrow, and the Coats of the Arteries, producing Horrors, a languid, ſmall, contracted, quick Pulſe, and even Fainting. All which are generally Signs and Symptoms of the Plague, which are of a more violent and quick Operation, in Proportion to the Virulence of the peſtilential *Miaſma*.

Thucydides, in his Account of the *Peloponneſian* War, has given us a Deſcription of the *Attic* Peſtilence. This Year, ſays he, was acknowledged to be free from all other Diſeaſes, for if any one was ill of any other Diſorder, he immediately fell into this. Some at firſt complained of extraordinary Heats in the Head, Redneſs, and Inflammations of the Eyes, and of the internal Parts; the *Fauces* and Tongue were immediately bloody; the Breathing difficult and very offenſive; to theſe ſucceeded Sneezing and Hoarſeneſs, laborious Breathing, and a violent Cough. If it reached the Heart, it quite oppreſſed it; the

Stools

Stools were bilious, with great Weakneſs. To many there happened a Hiccup, and violent Convulſions, which laſted with ſome a long while. The Body outwardly was not very hot to the Touch, nor pale, but reddiſh, livid, abounding with Puſtules and Ulcers. The internal Parts were ſo exceeding hot, that they could not bear even a Sheet upon them; ſome threw themſelves into cold Water, or into Wells, and had an inexhauſtable Thirſt; ſome had a perpetual Watchfulneſs, yet the Body did not waſte away. Some died on the ſeventh and ninth Days of internal Heat, while there was ſome Strength yet remaining; but if they eſcaped, the Diſeaſe removed into the Belly, with Ulcerations, and an immoderate *Diarrhœa*; many died of mere Weakneſs. Though in the Beginning the Seat of the Diſeaſe was chiefly in the Head, yet it pervaded the whole Body; if they eſcaped the former, great Diſorders would happen in the extreme Parts. Many of theſe eſcaped, and ſome with loſing their Eyes. Some likewiſe were ſeized with a Forgetfulneſs of all Things, and neither knew themſelves nor their Friends. Many periſhed out of mere Negligence, but ſome were cured. Yet there was no Remedy found out which was conſtantly uſeful. It was a miſerable thing to ſee the Dejection of Mind which Patients fell into as ſoon as they were taken ill, for they often ran into Deſpair.

All Plagues are not of the ſame Nature, but vary according to different Conſtitutions and Circumſtances. Thoſe who have written of the Plague univerſally agree, that ſpongy and porous Bodies, of an obeſe Habit, of a ſanguine and phlegmatico-ſanguine Conſtitution, Women, young Perſons, and Children, Perſons of a timid Diſpoſition, that are poor, live hard, or are given to Luxury, and ſit up late at Nights, are more apt to be afflicted with this Diſeaſe, than the ſtrong and intrepid, lean, nervous, indued with large Veſſels, Men, old Perſons, obnoxious to the *hæmorrhoidal* Flux, and who have Iſſues, and open Ulcers. Nothing brings on this Diſtemper more than Fear, Dread of Death, and a Conſternation of the Mind. HOFFMANN.

Peſtilential Fevers are ſo called, when the Patient falls into ſudden Weakneſs, for it is a Kind of malignant Fever, attended with more grievous Symptoms; the Patients die in a ſhort Time, that is, in two, three, or four Days, and ſometimes ſooner. If malignant Fevers ariſe in War-Time among the Soldiers, they are called Camp-Fevers; in *Hungary*, an *Hungaric* Fever. But the Plague, or Peſtilence, is known when Buboes and Carbuncles ariſe in various Parts of the Body. The Sweating Sickneſs had its Riſe in *England*, in which the Patient fell into a violent Sweat, of which many died in a Day's Time.

The

The *Hungaric* Fever is of a peculiar, malignant Kind, and happens in Time of War, with a ſudden Loſs of Strength, a moſt violent Pain in the Head, an Inflammation, Burning, Blackneſs, and Dryneſs of the Tongue and *Fauces*. HEISTER.

The peſtilential Poiſon diſturbs all the Functions of the Body; for unleſs it be expelled to the external Parts, it is certainly fatal. Nor is this to be done, as in other Fevers, by large Sweats, by Stools, by a Flux of Urine, by cuſtomary Evacuations of Blood, or by bleeding at the Noſe, either natural or artificial, for they rather haſten Deſtruction. The ſalutary and critical Excretion which perfectly ſolves the peſtilential Diſeaſe, is by Tumours in the Surface of the Body, not otherwiſe than the *Eryſipelas*, between the third and fourth Day, and the ſooner the better, for then the Symptoms are mitigated. That there is Poiſon contained in theſe Tumours, appears from hence; that if the Surgeon opens any of the Tumours with his Lancet, and then bleeds a ſound Man, he will be immediately ſeized with the Plague. The peſtilential Tumours are of two Kinds; the firſt ariſes in glandulous Parts, moſt commonly in the Groin and Armpits, ſometimes in the parotid and mammary Glands, as alſo the lower Maxillary, under the Chin, and in thoſe near the *Aſpera Arteria*. It is a hard, painful, tenſive Swelling of the Glands, with great Heat, and if they are ſalutary, being ſwoln, they grow ſoft, and ſuppurate. The other Sort is the *Anthrax*, or Carbuncle; *Celſus* deſcribes it in this Manner: It is a Swelling on which there are Puſtules, which riſe but little; they are black, ſometimes ſublivid, or pale. In this there ſeems to be a *Sanies*; it is black underneath. The Body itſelf is more dry, and harder than uſual. There is as it were a Cruſt about it, ſurrounded with an Inflammation; nor can the Skin be raiſed up in the Part, but is joined to the Fleſh underneath. *Mindererus*, who was preſent at the Plague, ſays, that a Carbuncle is of the Size of a Grain of Muſtard-ſeed, and about its Edge there is a Circle, or burning *Halo*, of a large Size. The Fleſh which it ſeizes is like an *Eſchar*, or putrid Fleſh, and falls off as if torn out by a Wolf. No Part of the Body is free from theſe Carbuncles, but they generally lay hold of the Membranes of the Muſcles, and the nervous and fibrous Subſtance of the Skin, eſpecially in the Back, Arms, and Thighs. At firſt there is an exquiſite Itching in the Part, which when ſcratched, Puſtules ariſe; they are of a red, livid, or whitiſh purple Colour, or ſometimes black. When the Puſtules are preſſed, they ſeem to be full of *Pus*, under which there is an Aſh-coloured Cruſt, which being taken away, the Fleſh appears corrupted and

ſpongy,

ſpongy, with intolerable Pain and burning of the circumjacent Fleſh, which is followed by a Mortification of the Part.

When the Plague is fatal, ſome die of a Fainting the firſt or ſecond Day, doubtleſs of a panic Dread. But in many, when the Poiſon is not expelled, or, if expelled, returns back, it brings on a Mortification of the nervous Coats of the noble Parts, of the *Pleura*, *Oeſophagus*, Stomach, and Inteſtines, or the *Meninges* of the Brain, which creeps ſpeedily to all the *Viſcera*, and the Blood itſelf; whence the Carcaſes ſwell, and have a moſt intolerable Stench. Sometimes, when the peſtilential Tumours are too plentiful, they die of a Symptomatic Fever, from the Inflammation, Pain, and intolerable Heat, not otherwiſe than in the Small-Pox.

It has been before remarked, that the Plague is not a Native of our Country, but is brought from remote Places; whence the beſt Preſervative is to fly to a diſtant Country; for the ſame Reaſon, thoſe Princes beſt conſult the Welfare of their Subjects, who, in the Time of the Plague, endeavour to prevent the ſpreading of the Infection; and when a Family is afflicted, ſeparate the Well from the Sick, and burn all the Moveables. While this Diſeaſe reigns, all Perſons ſhould live temperately, avoid an Exceſs in the Uſe of the Non-naturals, and abſtain particularly from violent Affections of the Mind, and every thing elſe that dejects the Strength, diſturbs Perſpiration, and generates Crudities in the *Primæ Viæ*; the Mind is eſpecially to be ſupported, and Fear, Dread, and Puſillanimity, are to be baniſhed; for more die of Terror, than of the Plague itſelf. Hoff.

Mead is rightly of Opinion, that the Poiſon of the Plague is of foreign Original; though I am not ignorant, that Attempts have lately been made to prove the contrary; Attempts which claſh with all Experience, and contradict the Hiſtories of this Diſeaſe, both ancient and modern. *Mead* thinks that the Plague has a great Similitude with the Small-Pox, they being both contagious Fevers from *Africa*, and both attended with certain Eruptions. The critical Tumours in the Plague are very different; in the moſt favourable Caſe, the morbific Matter is thrown upon ſome of the ſofteſt Glands near the Surface of the Body, as upon the inguinal, axillary, parotid or maxillary Glands; the firſt Appearance of which is a ſmall Induration, great Heat, Redneſs, and ſharp Pain near thoſe Glands. Thoſe Tumours, if the Patient recover, like the Puſtules of the diſtinct Small-pox, come to a juſt Suppuration, and thereby diſcharge the Diſeaſe.

In worſe Caſes of the Diſtemper, either inſtead of theſe Tumours, or together with them, Carbuncles are raiſed. The

firſt Appearance of them is a very ſmall, indurated Tumour, not ſituate near any of the forementioned Glands, with a duſky Redneſs, violent Heat, vaſt Pain, and a blackiſh Spot in the Middle of the Tumour; this Spot is the Beginning of a Gangrene, which ſpreads itſelf more and more, as the Tumour increaſes.

Theſe Diſtempers have yet a more manifeſt Likeneſs; for thoſe livid and black Spots which are frequent in the Plague, are the Signs of ſpeedy Death, and the ſame are ſometimes found to attend the Small-pox, with as fatal a Conſequence; nay, I have ſeen Caſes, when almoſt every Puſtule has taken this Appearance. In both Diſeaſes, when eminently malignant, Blood is ſometimes voided by the Mouth, by Urine, or the like. And we may farther add, that in both, Death is uſually cauſed by Mortifications in the *Viſcera*. This has conſtantly been found in the Plague, by the Phyſicians in *France*.

As in the Small-pox, the Management conſiſts in clearing the *Primæ Viæ* in the Beginning, in regulating the Fever, and in promoting the natural Diſcharges; ſo in the Plague, the ſame Indications will take place. In the Plague, indeed, the Fever is often much more acute; the Stomach and Bowels are ſometimes inflamed, and the Eruptions require external Application, which to the Puſtules of the Small-pox are not neceſſary.

When the Fever is very acute, a cool Regimen is neceſſary, but when the Pulſe is languid, and the Heat not exceſſive, moderate Cordials muſt be uſed. The moſt gentle Emetics may be given; the beſt is *Ipecacuanha*, if the Stomach or Bowels are not inflamed, for then certain Death muſt be expected; therefore it is ſafeſt to conſider, if any Inflammation has ſeized theſe Parts, for then Vomits muſt be omitted.

As for the Eruptions they muſt be brought to a Suppuration as ſoon as poſſible; as ſoon as they appear, fix a Cupping-Glaſs thereon, without Scarification; and when that is removed, apply a ſuppurating Cataplaſm, or Plaiſter of warm *Gums*.

If the Tumours will not ſuppurate, as the Carbuncle ſeldom or never does; yet if a thin *Ichor*, or Matter, exſudes through the Pores, or if the Tumour feels ſoft to the Touch; or, laſtly, if it has a black Cruſt upon it, then it muſt be opened by Inciſion, either according to the Length of the Tumour, or by a crucial Section. If there is any Part mortified, as is uſual in the Carbuncle, it muſt be ſcarified. Then it will be neceſſary to ſtop the Bleeding, and dry up the Moiſture

ſture with an actual Cautery, dreſſing the Wound afterwards with *Doſſils* and *Pledgits*, ſpread with a common Digeſtive, made with *Terebinth. cum Vitell. Ov.* and dipt in a Mixture of two Parts of warmed Oil of Turpentine, and one Part of *Sp. Sal. Ammon.* or in *Balſ. Terebinth.* and over all muſt be put a Cataplaſm of *Theriac. Lond.*

The next Day the Wound ought to be well bathed with a Fomentation of warm aromatic Plants, with Spirit of Wine in it, in order, if poſſible, to make it digeſt, by which the *Sloughs* will ſeparate. After this, the Ulcer may be treated as one from a common Abſceſs. Farther, in the glandular Tumours, when they ſuppurate, we ought not to wait till the Matter has made its Way to the outer Skin, but to open them as ſoon they are riſen to any Bigneſs; becauſe theſe Tumours begin deep in the Gland, and often mortify before the Suppuration has reached the Skin, as the Phyſicians in *France* have found, upon diſſecting many dead Bodies.

But the Patient runs great Hazard in this Way, notwithſtanding the utmoſt Care; therefore artificial Diſcharges for the corrupt Humours ſhould be attempted. To this Purpoſe, large Bleeding and profuſe Sweating are recommended unto us upon ſome Experience.

Sydenham has tried both with good Succeſs, but obſerves they ought not to be attempted, unleſs in the Beginning of the Sickneſs, and that we cannot expect any proſperous Event from either of theſe Evacuations, unleſs they are very copious.

In *France*, on the firſt Day, they bled about twelve Ounces, and then four or five Ounces every two Hours after. This, they pretend, had extraordinary Succeſs, with the aſſiſtance only of cooling *Ptiſans*, and ſuch like Drinks, which they gave plentifully at the ſame Time. The Bleeding muſt certainly be more liberal in this Caſe than in any other, yet Experience is the beſt Maſter. But where can be the Hazard, if the Patient muſt die without it?

As for Sweating, as *Sydenham* adviſes, it muſt be continued without Intermiſſion; his Manner is as follows;

1. ℞. *Theriac. Androm.* ℥ſs. *Elect. de Ov.* ℈j. *Pulv. è Chel. Cancr. comp. gr.* xij. *Coccinel. gr.* viii. *Croc. gr.* iv. *cum. q. ſ. Succ. Kermes. F. Bolus, quem ſumat ſexta quaque Hora, ſuperbibendo Coch.* vj. *ſeq. Julap.*

2. ℞. *Card. Benedict. & Scord. compoſ. an.* ℥iv. *Aq. Theriacal. ſtillat.* ℥ij. *Syr. Caryophyl.* ℥j. *M. f. Julapium.*

If there is a Vomiting, the Medicine muſt be deferred, and the Patient ſhould be made to ſweat, with the Weight of the Bedcloaths alone, drawing the Sheet up to his Face.

When the Sweat is begun, it ſhould be promoted with Sage Poſſet-drink, or Small-beer, in which Mace has been boiled, repeating them pretty often, for twenty-four Hours; in the mean while, the Spirits of the Patient are to be kept up with comforting Broths. The By-ſtanders ſhould forbear to wipe off the Sweat, nor ſhould the Patient change his Linen all that Time, which is a neceſſary Caution; if it be ſtopped before that Time, it will be to no Manner of Purpoſe; during the Sweat, the *Diarrhœa*, if any, and the Vomiting will ſtop of their own accord. SYDENHAM.

I ſhall only add, that *Theriaca*, and the like ſolid Medicines, being offenſive to the Stomach, are not the moſt proper Sudorifics. I ſhould rather recommend an Infuſion of *Virginia Snake-Root*, in boiling Water, or, for want of this, of ſome other warm Aromatic, with the Addition of about a fourth Part of *Aqua Theriacalis*, from which, in an Illneſs of the ſame Kind with the Goal Fever, which approaches the neareſt to the Peſtilence, I have ſeen very good Effects. MEAD.

Thoſe who are obliged to be near the Sick, muſt take care that the *Miaſmata* do not approach their vital Juices, nor yet the ſalival. To this Purpoſe, I would recommend frequent Spitting, and waſhing the Mouth with Vinegar, or Wine, or ſnuffing them up the Noſe. The Efficacy will be ſtill greater, if they are imbuted with *Rue*, or *Citron Rind*; for an Acid is the genuine Antidote of a putrid and ſulphureous *Miaſma*. Wherefore it is much ſafer to hold Acids in the Mouth, than *Alexipharmic* Roots. It will be likewiſe proper to get a few Spoonfuls of *Rheniſh* Wine, or *Bezoardic* Vinegar, diluted with Water, or Wine, and ſo take them. The *Turks* deal much in the Juice of Lemons.

Externally, many recommend the Uſe of Iſſues, becauſe the Matter of the *Miaſma* is wont to adhere to the ſerous Parts of the Blood, and to be brought by the Strength of Nature to the Place where the Iſſue is made, as is evident from an unuſual Pain and Tumour; beſides the Advantage ariſing from Expectoration.

When the Plague is actually begun, and the Body is coſtive, a gentle Clyſter ſhould be uſed. Then a Sweat ſhould be promoted, (twenty-four Hours at leaſt,) that the Poiſon may exhale and paſs through the Skin; and *Epithems* to the Heart will not be without Benefit, though they reach only to the right Orifice of the Stomach, and its nervous Coats; they may

may be made of *Theriac.* expreſſed Oil of Nutmegs, Camphire, Saffron, Caſtor, and Balſam of *Peru*. *Langius* recommends Bleeding after Sweating, which may be of uſe. But above all, Acids are highly praiſed, ſuch as Juice of Citrons, *Seville* Oranges, Lemons, Vinegar, *&c.* which reſiſt Poiſon, Putrefaction, and prevent the Diſſolution of the Blood.

When the Strength of the Diſeaſe is vanquiſhed, gentle Laxatives will be proper to expel the *Sordes*, during the Courſe of this Diſeaſe. The Writers on the Plague adviſe Cupping-glaſſes, with Scarification and Bliſters, in peſtilential Tumors. *Riverius* would have *Cantharides*, with Yeaſt and Vinegar, put behind the Ears, and the uſual Emunctories; and ſays, the Patient ſhould afterwards lie in Bed for twenty-four Hours, to promote the Efflux of the black, ſerous, and peſtilent Humour, by Sweat. Nor ſhould the Ulcers be ſoon healed, as *Langius* adviſes, but the Swellings ſhould be ſoon opened, and cleanſed by the uſual Digeſtives.

It is worthy Obſervation, that few Medicines are beſt; for which Reaſon People of the lower Claſs generally come off better than Perſons of Diſtinction; and there is nothing worſe than to give *Alexipharmics* abounding with a hot, volatile Oil; much leſs ought volatile Spirits to be given, for they fix the Poiſon upon the nervous Parts. Yet Herbs and Roots of this Kind are not altogether to be condemned, if mixed with Acids and Nitre; and I have been well informed, that a Mixture of *Carduus Benedictus* Water, and Wine Vinegar, if given to four Spoonfuls, with a Dram of *Crabs Eyes* and *Theriaca*, and repeated, were very uſeful in the Plague at *Hall*, in 1682. In the Plague likewiſe in *Lombardy*, 1526, many recovered by the Juice of *Goats-Rue*, Vinegar, Water of *Carduus Benedictus*, and a little *Theriac.* given to make the Patient ſweat. And *Thoner* obſerves, that nothing was of any Advantage in the Plague except *Theriacal* Vinegar given in the Beginning to promote a Sweat. And in the Year 1544, when a malignant Fever raged among the Soldiers, a whole Regiment was ſaved, to whom this Vinegar was given in due Time, except a very few, as I have been well informed. And in the Plague at *Rome*, Vinegar with Rue, Pimpernel Root, Betony, Garlick, and Juniper-Berries, with a little Camphire added to the Infuſion, cauſed many to eſcape. Likewiſe the Preſervative Water of *Sylvius* has been greatly eſteemed, becauſe of the Vinegar. And *Mindererus* aſſerts, that unleſs Alexiterials be given within twenty-four Hours, all Medicines are vain.

All Phyſicians who have wrote on the Plague, recommend Acids, and earthy Medicines. *Fracaſtorius* preſcribes thus:

℥. ℞.

℞. *Succ. Acetoſel.* ℥ij. *Citr.* ℥j. *Confect. Fracaſt.* ʒj. *Spec. Cordial.* ℈ij. *Aceti* ℥j.

Mindererus affirms, that there is no Putrefaction, Infection, or Depravation of the Humours that Acids will not vanquiſh, and if Vitriolic Medicines were forbid, he would never attempt to cure the Plague. *Crato*, and many others, ſpeak in the Praiſe of Spirit of Vitriol; and he affirms he has given it, not only with Syrups, but Conſerve of Roſes, with a happy Event. Among the earthy Remedies, Diaphoretic *Antimony*, *Bezoardic* Mineral, *Crabs Eyes*, burnt Hartſhorn, Amber, *Terra Sigillat. Armenian Bole*, and *Cinnabar*, are the chief. The next Claſs are *Analeptics*, for the Phyſician ſhould endeavour to raiſe the Spirits of the Patient, by proper Exhortations, and the following Medicines;

4. ℞. *Meliſſ. Turc. M.* iv. *Roſar. cum Sale contuſar. Flor. Lilior. conval. an. M.* j. *Cort. Citr. recent.* ℥iſs. *Cinnam.* ℥j. *Macis* ℥ſs. *affunde Vini Rhenan.* ℔ij. *Aqua commun.* ℔vj. *et cum leni Igne abſtrahe* ℔ivſs.

This Water given with the ſame Quantity of *Carduus Benedictus Water*, is a proper Vehicle for all other Remedies, and may be given alone, or with Syrup of *Sorrel* or *Orange-Juice*, and acidulated with Spirit of Salt.

It will be always beſt to expel the Poiſon as quick as poſſible, which may be done by Vomit, as ſoon as the Patient is infected and feels a Faintneſs, with a *Cardialgia*, to which, if a Sweat be ſubjoined, it will, as it were, deſtroy the Diſeaſe in the Bud, in this as well as other Diſeaſes. *Riverius*, as ſoon as the Perſon was infected, put a Feather in the Patient's Throat, cauſed him to vomit, then put him to Bed, and threw him into a Sweat with Broth. *Riverius* likewiſe affirms, that he was ill of the Plague himſelf, and cauſed to be taken away ſome Ounces of Blood, which being repeated, had cured many. However, it is not to be adminiſtred immediately after the Invaſion, but on the third Day, if there is a *Plethora*, and the Strength permits.

As to nitrous Medicines, if the Body is plethoric, the Temperament choleric, or *ſanguineo-choleric*, the Heat great, the Fever intenſe, with Thirſt, and Pain of the Head, *Nitre* may be given in a ſmall Doſe, with bezoardic Powders: But when there is a *Torpor*, and Sleepineſs, a weak Pulſe, Coldneſs of the Extremities, and great Fear, *Nitre* is hurtful. It is always ſafeſt if given with Camphire, and is not only an *Alexipharmic*, but reſiſts Inflammations. A Surgeon at *London*, who was at the Plague of *Vienna*, told me, that he uſed a Black Electuary with Succeſs, compounded of *Rob* of *Elder* and Honey, of each half a Pound,

a Pound, Gunpowder an Ounce, and Camphire a Dram; the Doſe was a Dram or two.

It is a good Sign when Buboes break out quickly, and ſoon grow ripe; but if they return, Death is to be feared. The moſt dangerous Kind are behind the Ears; the worſt are attended with Carbuncles, and a livid Circle. Carbuncles are worſe than Buboes, and if they are great and black, and near the Heart, they are moſt dangerous. The beſt Remedies are Sudorifics, which force the Humours to the Surface of the Body. Externally, Cupping-glaſſes are uſeful to draw out the Buboes, as well as Bliſters. If they are protuberant, a Suppuration is to be promoted with a Poultice of Figs, white Lily Roots, and Onions roaſted under Embers, with the Meal of Linſeed, Honey, and Saffron, or ſimple *Diachylon*, or with the Gums. When they are ſuppurated and opened, they are to be cleanſed with Balſam of *Arcæus* mixt with *Baſilicon*. Carbuncles are not to be ſuppurated, but treated with Digeſtives, that the Cruſt may fall off, and then with the *Egyptian* Ointment. But if they increaſe and mortify, they muſt be ſcarified, and dreſſed with four Ounces of Spirit of Wine, two Drams of Camphire, one Dram of Saffron, and as much artificial Nitre, made of urinous *Sal Ammoniac* and Spirit of Nitre, which will diſſolve in Spirit of Wine.

Laſt of all, too great a Heat of the Bed and Room are to be carefully ſhunned, as well as too much Cold. In general, every thing ſhould be temperate, and free from all Extremes. HOFFMANN.

Diemerbrock obſerves, that thoſe who are ſeized with this Diſtemper at the New and Full Moon, are in greateſt Danger of their Lives.

Several have obſerved, that all Soap-boilers, and Venders of it, all the Waſher-women, and all thoſe whoſe Buſineſs it was to uſe Soap, nay, thoſe who only wore Shirts waſhed with Soap, preſently died of the Plague.

Freind obſerves, that in the Sweating Sickneſs, the primary and principal Indication of Cure was to promote a free Sweating, and to maintain it with proper Supports, as long as the Diſtemper laſted; for by whatever Means the Perſpiration was diminiſhed, interrupted, or ſuppreſſed, the certain Conſequence was Death. The Sweats were promoted by ſudorific Medicines, and the Addition of Bed-cloaths, and the Strength was ſupported with Wine and Cordials. But though this Diſtemper roſe to its Height in fifteen Hours, yet the Danger was not over before full twenty-four Hours. In ſome, the Sweating was repeated, otherwiſe they fell into Fevers of an ill Kind. All Drinkables

were prohibited for the firſt five Hours; on the ſeventh the Diſtemper increaſed, at which Time the Delirium came on. The Patient was not allowed to ſleep, nor to eat Fleſh-meat. The concomitant Symptoms were an inward Heat and Burning, and unquenchable Thirſt, Sickneſs of the Stomach and about the Heart, vomiting ſeldom, Head-ach, Delirium, and then a Languor, a heavy Sleepineſs, and a quick and haſty Pulſe, with a ſhort and laborious Reſpiration.

It is beyond Diſpute, that the Plague appears in a different Manner in different Countries, and differently in the ſame Country, in different Years: The Fever in ſome Years proving more violent, and having ſome Symptoms different from what it has in other Years, I take for granted, muſt be the Reaſon of the remarkable Difference that appears in the Remarks of the moſt celebrated Authors who have written on this Subject.

There is one extraordinary Symptom, which moſt of theſe Authors mention, though none of them prove it, or pretend to have ſeen it; which ſeems to be inconſiſtent and incompatible with the animal Œconomy; making ſtill proper Allowance for Omnipotence and divine Vengeance, as in that of *Sennacherib*'s numerous Army; and many other ſuch Plagues mentioned in Scripture. What I mean, is, that a Perſon may die of the Plague inſtantaneouſly, or in a few Hours, or the ſame Day, that he receives the Infection. In *Turkey* it is well known, that all ſuch as have the Plague, conceal it as much as they can, and walk about as long as poſſible. And I preſume it muſt be the ſame in all Countries, for the ſame Reaſon, which is, the Fear of being abandoned and left alone; and ſo, when they ſtruggle for many Days againſt it, and at laſt tumble down in the Street, and die ſuddenly, People imagine, that they were then only infected, and that they died inſtantly of the Infection; though it may be ſuppoſed, according to the Rules of the Animal Œconomy, that the noxious Effluvia muſt have been for ſome Time mixed with the Blood before they could produce a Fever, and afterwards that Corruption and Putrefaction in the Blood and other Fluids, at laſt ſtops their Circulation, and the Patient dies. Thus, a *Greek*, who, in 1752, ſpoke to the *Britiſh* Envoy's Maſter of the Horſe at his Window, at *Conſtantinople*, went and died in an Hour afterwards in a Vineyard; and it was ſaid he died ſuddenly, though it was very well known to many that he had the Plague upon him for many Days. A Sailor of Capt. *Hill*'s, infected in *Candy*, in 1736, was a Fortnight in his Paſſage to *Smyrna*, yet he was five Days in the Hoſpital there before

before he died. Mr. *Liſle*'s Gardener was indiſpoſed twelve Days before he took to his Bed, and he lay in Bed eight Days before he died, in *July* 1745.

It is true *Thucydides*, in his Account of the Plague of *Athens*, relates, that ſome were ſaid to die ſuddenly of it; which may have led others into the ſame Way of thinking: But *Thucydides* muſt be allowed to have known very little of the Animal Œconomy, being no Phyſician; and he owns, moreover, that when the Plague firſt attacked the *Piræeus*, they were ſo much Strangers to it at *Athens*, that they imagined the *Lacedæmonians*, who then beſieged them, had poiſoned their Wells, and that ſuch was the Cauſe of their Death. Beſides, he pretends to affirm, from the little Experience he had of the Plague, that the ſame Perſon cannot have it twice, which is abſolutely falſe. The *Greek Padré*, who took Care of the *Greek* Hoſpital at *Smyrna* for fifty Years, aſſured me, that he had had the Plague twelve different Times in that Interval; and it is very certain that he died of it in 1736. Monſ. *Broſſard* had it in the Year 1745, when he returned from *France*; and it is very well known, that he and all his Family died of it in *April* 1762. The Abbé, who takes Care of the *Frank* Hoſpital at *Pirera*, declared to me, on Oath, that he has had it already, here and at *Smyrna*, four different Times. But what is ſtill more extraordinary, is, that a young Woman, who had it in *September* laſt, with its utmoſt pathognomonic Symptoms, as Buboes and Carbuncles after a Fever, had it again on the 11th of *April*, and died of it ſome Days ago, while there is not the leaſt Surmiſe of any Accident in or about *Conſtantinople* ſince *December*, this only one excepted: But there died four Perſons in the ſame Houſe in *September*; and as the Houſe was never well cleanſed, and this young Woman always lived in it, ſhe was at laſt attacked a ſecond Time, and died.

The only Antecedents I could obſerve to this Malady was a great Murrain among the Black Cattle in *May*, 1745, and in the Beginning of *June* the ſame Year, Swarms of Butterflies, and great Numbers of Caterpillars, and afterwards a violent Plague; which I predicted in 1752, as alſo, from ſimilar Forerunners, another in 1758, in the Months of *Auguſt* and *September*.

The Plague is now more frequent in the *Levant* than when I came firſt into this Country, about thirty Years ago; then they were almoſt Strangers to it in *Aleppo* and *Tripoli* of *Syria*, and it ſeldom appeared at *Smyrna*; now they have it frequently at *Aleppo*, and Summer and Winter at *Smyrna*, though never ſo violently in the Winter, which muſt be owing

to the great Communication by Commerce over all the *Levant*, and more extended into the Country Villages, than it uſed to be.

I take the Plague to be an Infection communicated by Contact from one Body to another, the ſubtle Miaſmata and volatile Steams entering the cutaneous Pores of ſound Perſons within their Reach, or mixing with the Air which they take into their Lungs, and ſo, advancing by the *Vaſa inhalantia*, mix with the Blood and Animal Fluids, whoſe Motion and Velocity they encreaſe by their noxious and active Qualities, and in ſome Days produce a Fever.

Some are of Opinion, that the Air muſt be infected, and that it is the principal Cauſe of theſe Plagues; whereas, I preſume that the ambient Air is not otherwiſe concerned, than as the Vehicle which conveys the venomous Particles from one Body to another, at leaſt in ſuch Plagues as I have ſeen hitherto at *Smyrna* and *Conſtantinople*; allowing always, that the different Conſtitution of the Air contributes very much to propagate the Plague, hot Air rendering the venomous Steams more volatile and active, and Cold contracting and dulling them. A Perſon in the Plague may be ſaid to have a contagious and poiſonous Air in his Room and about him, while, at the ſame Time, the open Air is free from any dangerous Exhalations; ſo that I never was afraid to go into any large Houſe wherein a plagued Perſon lived, provided he was confined to one Room.

The peſtilential Fever ſhews itſelf by Chillineſs and Shiverings, even in the warmeſt Months, ſo very like the firſt Approaches of an Ague, as no Ways to be diſtinguiſhed from them at firſt Sight. This cold Fit is ſoon accompanied with a Nauſea, and Deſire of Vomiting; when the Patient diſcharges a vaſt Quantity of bilious Matter, with great Uneaſineſs and Oppreſſion of the Mouth of the Stomach, attended ſometimes with a dry Cough. Next he has a violent Head-ach and Giddineſs, with ſome ſlight convulſive Motions; breathes hard; his Breath and Sweat ſtink; his Eyes are ruddy, and he looks frighted, ſad, and pale; his Thirſt inſatiable, Tongue yellowiſh, with a red Border; he has a total Loſs of Appetite, Reſtleſſneſs, great inward Heat, more than could be expected from the Fever, which is ſometimes pretty moderate, but grows ſtronger frequently towards Night: He often bleeds at the Noſe. In this diſmal Condition he continues ſome Days, till the venomous Matter begins to be ſeparated, in ſome Meaſure, from the Blood, and diſcharges itſelf critically at the Surface, by the Eruptions of Buboes, Carbuncles, Blains, petechial Spots, and ſome ſmall Veſicles or Bliſters: But all theſe Symptoms are not to be looked for in the ſame Perſon. When theſe Eruptions

appear,

appear, and grow ſenſibly, the Patient finds himſelf ſomewhat relieved from his great Oppreſſion. Some, in the above State, have a very violent Fever, ſometimes attended with Delirium and Phrenzy; others are ſtupid, ſleepy, and complain of nothing. Such as are furious and delirious ſeldom live ſo long as the ſleepy and ſtupid; but if they hold out till the Eruptions puſh plentifully, and then the Phrenzy abates, they may more probably recover than the Sleepy with a moderate Fever.

In *Turkey*, neither Air nor Diet produce the Plague, though both contribute very much to its Progreſs and Violence, when brought from any other infected Place. It generally rages moſt in *Auguſt* and *September*, when the Diet of the pooreſt Inhabitants, who ſuffer moſt by the Plague, conſiſts of unripe Fruits, as Cucumbers, Gourds, Melons, Grapes, *&c.*

The Plague breaks out here and at *Smyrna* ſome Years, when there is no tracing from whence it is conveyed. Moſt likely from Houſes before infected, and not well cleanſed afterwards: But Plagues of this Kind ſeldom ſpread, and are never ſo fatal as thoſe which come from Abroad.

As to the Cure of this Diſeaſe, ſome are for Bleeding; though in this Country it is reckoned infallible Death to open a Vein, and Phlebotomy is never uſed. But I am of Opinion, that a Medium between theſe might prove more to the Purpoſe; for, as it is an inflammatory Diſeaſe, Bleeding and Emetics might be of Uſe in the Beginning, eſpecially if the Fever is very hot, with a Delirium, or violent Head-ach; but after there begins a Separation of the morbific Matter, ſhewn by Eruptions, Bleeding and Purging muſt prove prejudicial; yet, gentle Vomits might, even then, be allowed, as they might drive out the Eruptions more powerfully than Nature could do it without their Help. As the peſtilential Fever has many Remiſſions, I judge that the Uſe of the Bark might be of great Service, and ſo it proved to be, *Anno* 1752, to the *French* Ambaſſador's Servant, to whom I ſent it, with Directions, by *Padré Joſeppé*; and he alone recovered of all who were taken ill in that Village.

The Practice in the Hoſpital is thus: When a Perſon is ſuſpected, they give him a large Doſe of Brandy, with a Dram of *Venice* Treacle, covering him well that he may ſweat. The firſt three Days he eats nothing but Vermicelli boiled in Water, with a little Lemon Juice. On the fourth he has Rice and Water; which Diet they obſerve ſtrictly to the fifteenth or twentieth Day, and then they allow him very thin Chicken Broth; his whole Drink, from firſt to laſt, is only warm Water.

They apply firſt to the Buboes and Parotids a Pultice of Mallows and Hogs-lard; and after they are ripe and open, they dreſs with *Unguent. Baſilic.* To the Carbuncles they apply Carmac and Sugar for ſome Days, to cool them; when they begin to ſeparate they apply a Digeſtive of thin Turpentine with the Yolk of an Egg. They put nothing to the Blains or petechial Spots. They give no other Medicine, except a little Bezoar to the Rich; nor can they be perſuaded to change their Method.

I think Antiphlogiſtics ſhould be uſed before the Eruptions, and Alexipharmics and Antiſeptics afterwards, more particularly Camphire, and ſome Doſes of the Bark in the Remiſſions; and Bliſters muſt be of great Uſe to the ſtupid and ſleepy.

I hold the beſt Preſervative to be removing from infected Perſons Houſes, and to keep at a Diſtance from them for many Days.

Some think that Fire preſerves from the Plague, from whom I differ; having obſerved that Cooks, *&c.* who are always near the Fire, ſuffer the moſt. Fire gives Energy to the Effluvia lodged about them, which otherwiſe might diſſipate in the Air; and as hot Weather propagates the Plague, Fire ſhould do the ſame, more or leſs.

The next beſt Preſervative I take to be Moderation, and Food of eaſy Digeſtion, of a balſamic Quality, fit to produce rich generous Blood: Likewiſe to guard againſt all diſmal Thoughts and Apprehenſions. MACKENZIE.

Of FEBRILE INFECTION.

THE Words *Infection* and *Contagion* are too commonly underſtood under the alarming Notion of a Plague, a peſtilential or malignant Fever. But thoſe Terms are here uſed in no ſuch limited Senſe, though with an extenſive Meaning to all Fevers, of whatever Kind, that are imparted from one Perſon to another, either by a near Approach to each other, or by Means of ſuch Subſtances, as have imbibed Particles by which a Fever may be communicated and ſpread.

It is neceſſary alſo to obviate another vulgar Error that prevails. Nothing is more common than to hear a Fever, or other Diſtemper, pronounced to be free from any infectious Diſpoſition, and the Attack of it upon a few attributed to very different Cauſes; becauſe the Perſon himſelf, who judges in this Manner, has had the good Fortune to eſcape, as ſome

others

others may have done, who were equally exposed to the Infection.

As there is no Remedy, though the most sovereign in the World, which does not sometimes fail of Success, even in Cases where, seemingly, it is well adapted; so there is no Contagion, so far as I think, yet known, that does affect all Mankind indiscriminately. Inoculation for the Small-pox sometimes fails to produce that Disease, and yet no one questions its being contagious. I never found in myself the least Symptom of an Infection, though for several Years I have daily atttended People labouring under contagious Maladies. It does not thence follow, that the Hospital Fevers, during those Times, were not infectious, as there are the most positive Proofs of the contrary.

An infectious Malady is not, therefore, always a Calamity which spreads itself to every Person that approaches; the Plague itself is not altogether of such a Nature. Is is not, therefore, a Distemper, which, in certain Circumstances, is, or may be, communicated to one, two, or more Persons, and that, for the most Part, in its identical Form, and peculiar Nature, which must be suitable to the Habits and Dispositions of the Persons who received it? What these Dispositions are is not the Question at present. It may suffice, that I illustrate and confirm my Meaning by a late Incident.

In a Word, where there were eighteen Marines, five of them were seized with a severe Flux, being infected by two Seamen who were warded with them. Among 592 Patients, then in the House, there was no where heard this Complaint, but in that Ward. The five Marines became, themselves, sensible how they got the Distemper, though thirteeen, in a parallel Situation, were never in the least affected by it.

In acute Ailments, we judge the Stools, more especially if very fœtid, to be the most communicative of a Taint; next to those the Breath, and, lastly, the Effluvia from Patients in Fevers.

As to the Method of treating a Person who has received this Infection from a Fever, the Manner ought to be altogether similar, whether the Infection be acquired from a slighter or a greater Taint; and that it should be practised also in all Cases of Relapses.

The Effect of Contagion is often sudden, and, at the same Time, sensible. The slightest Degree is from the bad Smell of Patients labouring under offensive Diseases. Such slight Degrees of Infection I have often observed to be derived from Patients of a gross Habit of Body, when labouring under inflammatory Distempers, and even other Complaints.

Some have received ſuch an Infection from aſſiſting in putting dead Bodies into the Coffins; and likewiſe Nurſes by Perſons in the Small-pox. Shiverings, Sickneſs, and Head-ach are the uſual proclaiming Symptoms: Vomits and Bliſters ſoon reinſtate them; ſeldom one proving mortal where the Patient was properly treated.

Thoſe infected by Patients in contagious Fevers, generally compare the firſt Impreſſion to an earthy diſagreeable Scent, received into the Stomach, as from a Grave newly opened, but not quite ſo raw as the cadaverous Stench; the Effects of which, Shivering and Sickneſs, are inſtantaneous. This is a particular Smell, hardly to be deſcribed: Some compare it to that of rotten Straw; others to the diſagreeably affecting Scent from the confluent Small-pox at their Turn, though it is not ſo ſtrong.

But many are not ſenſible of any effects from this Poiſon at firſt. An Infection from a Fever will ſometimes continue about a Perſon for many Days, nay Weeks, diſcovering itſelf chiefly by irregular Shiverings, and thoſe ſometimes ſo ſevere, as to oblige the Patients to have recourſe to their Beds once a Day; ſometimes every other Day.

It is alſo found, that in Fevers thus contracted, the Patients are very ſubject to Relapſes: In an infected Place, whether Houſe, Chamber, or Ship, where the Seeds of Contagion are harboured, frequent Relapſes into Fevers, even to the ſixth or ſeventh Time, are not unuſual, and may be juſtly aſcribed to the Influence of the Contagion.

Qu. Do not theſe ſame Cauſes, which occaſion Relapſes, ſometimes give Motion to the morbific Effluvia, before received into the Body, and enable them to produce ſuch Effects, as otherwiſe probably might not have appeared? I am the rather of this Opinion, becauſe, as I ſaid before, the Effects of the communicated Miſchief from bad Fevers are often very quick, and ſenſible to ſome, immediately at the Time the Poiſon is received. But if a Perſon perceives no Symptom of an Infection, till many Days after having left the Place of its Abode, and is firſt taken ill of it immediately after having been wet with Rain, expoſed to Cold or Damp, or been guilty of Intemperance and Exceſſes, it is probable, that theſe Cauſes have excited this dormant Poiſon into Action; and none can poſitively affirm, that without their Influence it would have ever affected the Conſtitution.

The Coldneſs felt, at firſt, over the Body, the Shiverings, with ſlight Sickneſs at the Stomach, tend to confirm the miſtaken Opinion, that theſe are only the common Symptoms of a Cold,

a Cold, or ſudden Chill, or what the Vulgar term an Ague: yet, this is the critical Time for the Advice of a Phyſician, as improper Treatment, or the Delay of a few Hours, may produce Effects beyond the Power of Medicine to remove.

To all who are ſuppoſed to be infected by Fevers, during this State of Rigors, a gentle Vomit is immediately to be exhibited, before the Fever be formed, and before the Fulneſs or Hardneſs of the Pulſe renders its Operation dangerous. If the Vomit be delayed too long, and eſpecially if bleeding muſt precede it, the moſt certain and favourable Opportunity of procuring Safety for the Patient is paſt.

The Effects of this Antidote are ſo well known, and have been ſo fully aſcertained by repeated Experience, that thoſe who are employed in Fever Wards, as ſoon as taken ſick, have immediate Recourſe thereto. I have found it equally ſerviceable in preventing Relapſes, when given immediately at the Return of the Shiverings. I ſhould add, that a looſe Stool or too ſhould at this Time be procured, either by the Emetic or Clyſters.

The Vomit may generally be very gentle, ſeldom exceeding from ſix to ten Grains of *Ipecacoanha*. The Patient ſhould afterwards, when put to bed, take a ſweating and quieting Draught, containing five Grains of *Sal C. C.* and from fifteen to twenty Drops of *Tinct. Theb.* Sometimes five Grains of Camphire have been given every four Hours, with large Draughts of Vinegar-Whey.

But if the Head next Morning be not altogether free from Pain, or the Fever is ſtill to be apprehended, ſomething more muſt be done.

It ſhould always be remembered, in Caſes of Infection, to purſue the moſt quick and vigorous Methods poſſible; as in the firſt Hours, and afterwards Days, of this Fever, leſs muſt be truſted to Nature, than in any other Diſtemper. At this Period, no Confidence ſhould be put in Alexipharmic, or ſweating Medicines; *Mithridate*, *Theriacá*, *&c.* never to be uſed in Caſes of imminent Danger, till after proper Evacuations.

If the aforeſaid Symptoms of a Fever remain after the Adminiſtration of the Vomit, Clyſters, *&c.* or ſhould the Exhibition of an Emetic have been altogether neglected, or too long delayed; or the Patient injudiciouſly treated with ſweating Medicines, and bleeding, where the Proof of Infection is evident, Recourſe muſt be ſpeedily had to Bliſters, to be applied to the Back, if the Head or Limbs are affected, and to the Breaſt, ſhould the Malady have ſeized that Part.

I do

I do not know a ſurer Mark of a prevailing infectious Fever, than this: If twenty Patients to whom it has been communicated, be bliſtered at Night, about ſixteen of them ſhall next Morning be entirely free from Heat. This, however, is meant only of ſuch Infections whoſe Source is not highly poiſonous; nor can I affirm that ſuch ſalutary Effects will always be produced while the Patient continues in an infected Place, or within the Sphere of its Activity.

How far thoſe Means would operate towards the expelling the Small-pox Venom as ſoon as admitted, or, perhaps, in ſome other infectious Fevers, that have not occurred in my Practice, I do not know: But this I will venture to aſſert, that in the worſt Infections I ever was witneſs to, the Method preſcribed has had better Effects, than any Manner of Treatment recommended by the Authors I have read on this Subject, or any that I have had Opportunity of trying myſelf: And in Relapſes, where I have had the moſt frequent Caſes for a fair Trial, I have been fully ſatisfied of its beneficial Effects.

Much has been ſaid againſt the promiſcuous Uſe of Bliſters, and their early Application in Fevers: And indeed, in Fevers truly inflammatory, and ſome other Caſes, I have known bad Effects proceed from them.—But, what I and others have frequently reflected on with Aſtoniſhment, very ſeldom in Ship Fevers, there is felt ſuch a State of the Pulſe as to forbid their Uſe. What ſome mechanical Writers in Phyſic have advanced concerning the Theory of bliſtering Applications, or their acting as *Stimuli*, and ſo always raiſing and encreaſing the Fever, is not applicable to the moſt of thoſe Fevers of which I treat, where, according to the Nurſe's Phraſe, the Patient generally receives a *Cool* from the Bliſter.

When the Infection, by theſe Means, has been removed twenty-four or thirty-ſix Hours after the Application of the Bliſters, the inteſtinal Canal ſhould a ſecond Time be gently cleanſed, by giving Rhubarb, with a ſmall Quantity of vitriolated Tartar.

I have remarked already, that ſome Perſons who have once been infected, though they were ſpeedily relieved by a Vomit and Bliſtering, yet afterwards became, for ſome Time, ſickly, and afflicted with irregular Complaints. This happened chiefly in weak Conſtitutions, to hyſterical Women, and in very malignant Taints.

As to the Appearances after Death, in ſuch as have died of contagious Fevers;—in the few I have opened, very large Col-

Collections of *Matter* were generally found in ſome Parts of the Body.

I conjecture, that the great and experienced Benefit derived from the very early Application of Bliſters, flows from ſo many Ulcerations and Veſicles being timely provided for the complete Diſcharge of thoſe purulent and tainted Particles, by which they and the Infection are freely diſcharged from the Body.

It is an Obſervation of the beſt practical Writers, that Iſſues and Setons are moſt excellent Preſervatives againſt receiving an Infection; nay, even that of the Plague itſelf: And the moſt hopeful Criſis in the Plague, and in moſt peſtilential Fevers, happens when Nature excites Tumors kindly ſuppurating, by whoſe beneficial and plentiful Diſcharges the deadly Poiſon is expelled from the Conſtitution.

Infection, this dreadful Source of Diſeaſe, is not confined to Armies or Fleets, in Ships or in Priſons; but it elſewhere, in Places often unſuſpected, exerts its malignant Influences.

When a Nurſe, or when two or three Perſons in the ſame Family, are ſeized with a ſimilar Fever; Cold, Fatigue, or Grief are ſolely blamed, or the like Cauſes, which ſtrongly diſpoſe the Conſtitution to receive and animate the Taint; when ſuch Diſeaſes (as I have known) attack a Boarding-ſchool of Boys or Girls, the fatal Diſtreſs is often aſcribed to Cauſes which are not in the leaſt acceſſary.

When Spots are obſerved to riſe above the Surface of the Skin, the Fever, by ſome, may be ſuppoſed Miliary, and free from any Danger of being communicated. But, in contagious Fevers, thoſe elevated Spots are very common. In the malignant Fever which prevailed among the *French* Priſoners in *Wincheſter* Caſtle, where the Contagion was very mortal in the Beginning of the Year 1761, I remarked the Spots were, on moſt of the Patients, elevated, and of the miliary Kind.

I have thus offered a few Thoughts on a Subject, which it is to be wiſhed was more univerſally ſtudied and known. The Particles of Contagion are, for the moſt Part, of ſo ſubtile a Nature, as ſeldom to fall under the Inſpection of our Senſes; whence in this, as in other Subjects ſo abſtruſe, there is a large Field open for Diſſentions. Men, indeed, of the greateſt Learning have frequently diſagreed in their Opinions concerning the real or poſſible Exiſtence of an Infection from many Diſtempers; of which the *Yellow Fever* in the *Weſt-Indies* furniſhes a ſtriking Inſtance. Not many Years ſince, this Fever became an Object of Conſideration before the Lords Commiſſioners of Trade and Plantations; where it was urged, as a

Reaſon

Reaſon for not removing the Seat of Government and Juſtice in *Jamaica*, from *Spaniſh Town*, to *Kingſton*, that there was Danger from the *Greenwich* Hoſpital, ſituated near *Kingſton*, of an Infection from the Yellow Fever being frequently communicated to that Town. The Opinion of a Phyſician was taken, who had long practiſed in that Iſland; and by him it was judicially and clearly given, that, from the Yellow Fever in *Jamaica*, there was no Infection; and the ſame was likewiſe the Opinion of other ſkilful Phyſicians.

On the other hand, our *American* Colonies are under great Apprehenſions of the Importation of a Yellow Fever, in Goods and Ships from the *Weſt Indies*; by which they have often ſuffered.—And it is but a few Years ſince, when a Gentleman dying of a Yellow Fever at *Barbadoes*, his Wearing Apparel and Linen, packed up in a Cheſt, were ſent to his Friends at *Philadelphia*; where, upon opening the Cheſt, the Family was taken ill; and the Cloaths being hung abroad to be aired, they preſently diffuſed the Contagion of this Yellow Fever over that Town, of which two hundred Perſons died.

The vulgar Appellations given to Fevers do ſometimes diſcloſe to us very little of their Nature and true Diſpoſition; and thus much is certain, that from the ſame Infection, I have known to proceed what might be termed, the Yellow, Petechial, and Miliary Fevers; and while the Contagion, in a few, aſſumed an intermitting Form, and was mild, in others it raged with a conſtant Fever.

Many Countries and Cities, in all human Probability, might have eſcaped the dreadful Scourge of the Peſtilence, by taking, on its firſt and moſt early Appearance, the proper Meaſures of ſeparating the Sick from the Suſpected, though in Health; and ſhutting both ſeparately up, with proper Officers and neceſſary Attendants, from all others; and carefully tracing the imported or generated Poiſon, wherever lodged, that the infectious Atoms might be effectually deſtroyed, by the judicious Application of Fire and Smoke. But the Incredulity of ſome has been ſo great as to deny a Contagion to be in the Plague itſelf at its firſt breaking forth; becauſe no Marks of Contagion were found on the Dead Bodies. However, that this has proved a fatal Miſtake, is well known to ſuch as are converſant with the Hiſtories of the different Plagues in *Europe*.

The Phænomena, even in the moſt manifeſt Contagion, are often wonderfully myſterious, and altogether unaccountable. Thus the Small-pox has been for Ages, and continues to be, the Terror and Deſtroyer of a great Part of Mankind: But from what Origin, or how, was this Poiſon firſt engendered?

dered? The *Europeans* have carried it to almoſt all Parts of the World, though not a Marine might have been infected with it in a whole Voyage. This Venom has been conveyed in an old Blanket to Nations of *Indians*, ſome of whom it has almoſt extirpated.

Further, the ſpecific Nature and Qualities of ſuch Poiſons are likewiſe various from each other, and in many Reſpects inſcrutable. How far does each extend its proper Sphere of Activity? Who will undertake to aſſign an irrefragable, or a plain Reaſon, why the Small-pox will infect Perſons but once during the Period of their Lives; while the Plague, and other Infections, attack the Conſtitution again and again? There are unqueſtionably Limits preſcribed to human Reſearches, beyond which, though Fancy may take its Flight, and Theory make wide Excurſions, all is Conjecture, Obſcurity, or profound Darkneſs. LIND.

Of the MILIARY FEVER.

A *Miliary Fever* is not unlike a *Catarrhal*, and is attended with a more intenſe Motion of the vaſcular and nervous Syſtem, whereby a *corrupt lymphatic Matter*, of a peculiar Nature, is expelled from the inward, and more eſpecially the nervous Parts, to the Surface of the Skin, in the Form of ſmall, rough, miliary Puſtules, ſometimes red, and ſometimes white.

Theſe ſmall Puſtules are exceeding numerous, cauſing a Corrugation, Roughneſs, and Dryneſs of the Skin, and have a fetid Smell peculiar to themſelves. There is no Eruption ſo inconſtant as this, for it will ſometimes ſtrike in ſuddenly, and as ſuddenly appear again; and is attended with an itching, pricking Senſation more than any other Kind. Other Eruptions are common to all Countries, and are equally vexatious to Men as well as Women; but the *Miliary* ſeems familiar or endemic to ſome Places only, and more frequently attacks the female Sex, eſpecially in Childbed. It is neither *epidemic* nor *contagious*, and ſeems rather owing to a Fault in the *Viſcera* and Fluids, than the Intemperature of the Air.

The miliary Eruptions are either *red* or *white*, and are both more or leſs acute, benign or malignant. The *red* are leſs dangerous, are generally free from a Fever, and then are chronical, appearing at ſtated Seaſons of the Year; but ſometimes they are accompanied with an acute Fever. The *white* ſeldom or ne-

ver

ver appear without a Fever, and therefore are more dangerous. In theſe the *Lympha* is affected with a Kind of an Acidity; for the Patient diſcharges Plenty of *Serum* by Sweat, Urine, Stool, or Salivation, which are the Effects of an Acid which coagulates the thicker Part of the Blood, and ſeparates the *Serum* from it. Beſides, all Kinds of *Acids* and *Refrigerants*, not excepting *Nitre* freely taken, are moſt hurtful in this Diſeaſe. On the contrary, *Abſorbents* and *Anti-Acids*, and Things which render the Blood ſpirituous, are moſt ſalutary. Women who eat much Fruit, and ſuch like Traſh, of the aceſcent Kind, and live idle, ſedentary Lives, are moſt ſubject to this Diſeaſe; add to this, that thoſe who have died of it, have had a great deal of grumous Blood in the large Veſſels, and in the Cavities of the Heart.

The *red Sort* proceeds from a ſharp, ſalino-ſulphureous Serum, which is manifeſt from the Heat and Itching of the Skin in this, more than the *White*. Therefore thoſe whoſe Blood is impure, ſuch as the Aged, the Scorbutic, Women labouring under a Suppreſſion of the Menſes, or Men afflicted with a Stoppage of the periodical Bleeding Piles; or who are fond of ſalt Meats, groſs Malt Liquors, or ſmoak much Tobacco, together with a lax Habit of Body, and who lead an idle, inactive Life, are moſt ſubject to this Diſeaſe. It is found by Experience, that temperate Remedies, which obtund the *ſaline Spicula*, are moſt efficacious againſt this ſort. Whereas heating, volatile Medicines, which induce a Commotion in the Blood, are known to increaſe the Diſorder.

Sometimes the *miliary Eruptions* are *idiopathic*, and ſometimes *ſymptomatic*, and ſupervene to other Fevers, eſpecially the Continual, when on the Decline. They likewiſe appear very commonly with the Meaſles, Small-pox, putrid and ſpotted Fevers, when drawing towards an End, and then they raiſe a new Fever, whoſe Attack the debilitated Patient is not able to ſtand. When they appear in the Beginning of acute Fevers, particularly the Small-pox and Meaſles, they forebode no happy Event.

The *Idiopathic* begins with a ſlight Shivering, ſucceeded with Heat and Loſs of Strength, ſometimes even to Fainting. There is a Straitneſs about the Breaſt, attended with Anxiety and deep Sighs, Reſtleſſneſs and Watching; at leaſt the Sleep is very unquiet and diſturbed. There is a pricking Kind of a Heat perceived in the Back, with an alternate Succeſſion of Cold, Shivering, and Heat under the Skin, but moſt ſenſible in the Palms of the Hands. Women in Child-bed have the Flux of the *Lochia* ſtopped, and the Milk recedes from their Breaſts. To theſe ſucceeds a Roughneſs of the Skin like that of a Gooſe,

and

and a great Number of Puſtules appear, ſometimes white and ſometimes red, or both together, of the Size of *Millet* (or *Muſtard*) Seed. They firſt beſet the Neck, then the Breaſt and Back, and afterwards the Arms and Hands. When theſe begin to riſe on the Surface of the Skin, the more grievous Symptoms ceaſe. The Pulſe, which before was hard, contracted, and quick, grows more ſoft, free, and ſlow; the Dejection of Mind goes off, the Skin becomes moiſt, and the Belly, which was bound ſo much that the Patient could not break Wind, now ſpontaneouſly admits him to go to Stool. Afterwards the Puſtules ripen, and are full of a ſtinking *Ichor*. The Urine appears more ſaturated, and a ſingular fetid Sweat, proper to this Diſeaſe, breaks forth; the Flux of the *Lochia* in Females returns, and within the Space of ſeven or eight Days the Puſtules diſappear, with great Itching in the extreme Parts, drying up and falling off in Scales. Then the Patient recovers Strength, and regains Health.

Sometimes the Puſtules appear on the third or fourth Day, ſometimes on the ſeventh, and ſometimes not till the fourteenth. HOFFMAN.

This Diſeaſe frequently attacks *Childbed Women*. At firſt the Puſtules are full of a limpid Serum, then it is a little yellowiſh, or of a Pearl Colour. This *Fever* is *ſimple* when the Puſtules appear alone; and *compound* when there are red papillary ones mixt with the white; thoſe, when they break out by themſelves, are commonly called a *Raſh*.

There are colic, nephritic, pleuritic, rheumatic, and falſe Labour-Pains often attending this Fever; as alſo an Oppreſſion of the Breaſt, a Sinking of the Spirits, and a Hurry in the Head, as often as the Patient compoſes herſelf for Sleep, with a frequent weak Pulſe.

It is hard to determine the Day of the Eruption of the Puſtules; but, as far as I have been able to obſerve, it is the tenth or eleventh Day from the Beginning, if the Fever makes a regular Progreſs; ſometimes on the eighteenth, and ſometimes on the twenty-firſt or twenty-ſecond Day.

If a *Diarrhœa* attends this Fever in Childbed-Women, it is a dangerous Symptom, becauſe it preyents the Flux of the *Lochia*. HAMILTON.

Doubtful Signs are, when the Pulſe continues hard and full, after the Puſtules are come out; when there is no Sleep, great Inquietude and Difficulty of Breathing; when there is a profuſe Sweat during the whole Progreſs of the Diſeaſe, or a continual Deſire of making Water, or when the Urine, being thick and coloured, ſuddenly becomes limpid, thin and pale;

as alſo when there is Griping and Looſeneſs, eſpecially in Childbed-Women.

Bad Signs are, when the *miliary Puſtules* appear and vaniſh by Turns, and the Symptoms continue violent; but it is worſe if they quite diſappear: Hence an Oppreſſion of the Breaſt, with Sighs, a Straitneſs of the *Fauces*, Loſs of Strength, and great Anxiety.

Fatal Signs are, when the morbific Matter not being thrown out again, there is an inward Heat, and the extreme Parts are affected with Cold and Shivering, and there is a cold, profuſe Sweat; or, on the contrary, when the extreme Parts are hot, and a notable Senſe of Coldneſs is perceived in the *Abdomen*, then the Patient dies in a fainting Fit, ariſing from a Mortification of the Stomach, Inteſtines, Brain or Womb.

The Cure of this Fever depends on the following Things: 1. To correct and temperate the acrid morbific Matter which diſturbs the nervous Parts. 2. To relax the ſpaſtic Strictures of the nervous Fibres proceeding from thence. 3. To evacuate the prepared morbific Matter through the Pores of the Skin, and prevent its ſtriking in.

To dilute the Sharpneſs of the Humours, and to appeaſe the Irritation of the nervous Parts, the following Decoction may ſerve for common Drink:

1. *Raſur. C. Cervi, Rad. Scorzon. Sarſaparill. an.* ℥ij. *Aq. commun.* ℔vj. *F. Decoctum.*

Let the Patient be always kept in an equal moderate Heat, and abſtain from ſtrong Alexipharmics, and Things actually hot, becauſe they throw him into too profuſe a Sweat. But when there is an Apprehenſion of the Puſtules ſtriking in, then the Decoction may be drank hot, with moderate *Expellents*, as the Exigence requires. Nor ſhould the Medicines be too cooling, becauſe they increaſe the Anxiety and Faintneſs. In the *red Sort*, when there is an internal Heat, with Thirſt and a great Pulſe, Diaphoretics with a little Nitre will be proper; even though *red* and *white Puſtules* appear together. But *Nitre* alone ſhould be uſed with Caution, eſpecially when there are Signs of Malignity. No Malt Liquor ſhould be drank, but the former, or rather the following Decoction:

2. ℞. *Rad. Scorzon. Raſur. C. Cervi, an.* ℥iij. *Sarſaparill.* ℥ij. *Rad. Cichor.* ℥j. *Sem. Fœnicul.* ℥iij. *F. Species, quarum* ℥iſs. *ex ſex Libris Aquæ, cum hordei mundati manipulo per tres fermè horæ quadrantes decoquantur.*

The

The Belly ſhould be neither too much bound nor too open, yet even the gentle Laxatives are not to be given till the Puſtules begin to dry; and then there is nothing elſe required but an *emollient Clyſter*.

Bleeding ſhould be cautiouſly uſed, for when the Weakneſs is exceſſive, the Sweats profuſe, and the Pulſe quick, it muſt be omitted. On the contrary, it is neceſſary for Childbed-Women, when the *Lochia* are ſuppreſſed, and the Symptoms of a Miliary Fever begin to appear; but then it muſt be done ſpeedily, and the great Anxiety, Fainting, and Difficulty of Breathing will ceaſe, and the Puſtules break out.

The Patient muſt not riſe out of Bed, nor continue long in an erect Poſture, for Fear of Fainting, and ſtriking the Puſtules in. Analeptic Mixtures ſhould be given to raiſe the Spirits, compoſed of the following, or the like Ingredients: *Aqua Meliſſæ citrat. Lilior. Convall. Flor. Acaciæ, Rubi Idæi cum Spir. Nitr. dulc. et Syrup. Succ. Citri.* To which may be added, as Circumſtances require, gentle Diaphoretics, as *Cornu Cerv. Philoſoph. ppt.* and *Antimon. Diaphoret.* In colliquative Sweats, Citron Juice, and *Species de Hyacinth.* may be added.

Bliſters on the Back are very proper for this Diſeaſe, for they help to draw off the impure ſerous Humours, and ſtimulate the fatigued nervous Fibres to a Contraction, ſo as to expel the morbific Matter. When the Eruption is ſlow, and the Motion of the Humours is turned to the inward Parts, particularly the Head, a Bliſter applied to the Calves of the Legs has been often found very ſerviceable. HOFFMAN.

Hamilton uſed to preſcribe the following Bolus:

3. ℞. *Sperm. Cet. Pulv. è Chel. Cancror. comp. an.* ℈j. *Crot. gr.* v. *Syr. Paralyſ. q. ſ. M. f. Bolus, ſexta quaque Hora ſumendus.*

He looked upon *Diaphoretic Antimony* as a noble Medicine to promote the Eruption of the *Miliary Puſtules*, and to take off a *Delirium*. The Doſe is a Scruple every ſixth Hour.

Albrecht, Profeſſor of Medicine at *Gottingen*, praiſes *Camphire* for bringing out the Puſtules, when ſtruck in, and attended with dangerous Symptoms, which he gave in the following Manner:

4. ℞. *Succin. Alb. ppt. gr.* xij. *Nitri gr.* vj. *Camphor. gr.* iv. *M. f. Pulvis, quarta quaque Hora ſumendus.*

Mead affirms, that the Patient ſhould loſe Blood in the Beginning of this Diſeaſe, let the Puſtules be of what Kind ſoever; and yet declares ſoon after, that the more ſparingly

Blood is drawn, the more happily will the Diſeaſe generally terminate. However, if the Patient is in a Sweat, it muſt either be omitted entirely, or put off for a Day or two.

He thinks the Endeavours of Nature to expel the morbific Matter through the Skin, ought to be aſſiſted with moderately Cordial Medicines, ſuch as the *Bezoardic Powder*, the *compound Powder of Contrayerva*, and the *Cordial Confection*; adding *Nitre* in Caſe of an Inflammation.

The following Hiſtory taken from the *Commercium Literarium* for 1735, may give farther Light into this Diſeaſe. An *Epidemical Miliary Fever* raged at *Straſbourg*, in *November*, *December*, and *January*, of the Year 1734 and 1735, with and without *Spots*, which made terrible Havock among Men of robuſt Conſtitutions, all Remedies having been tried in vain. They were ſeized in an Inſtant with Shivering, Yawning, and Stretching, and Pains in the Back, ſucceeded by a moſt intenſe Heat, and at the ſame Time there was a Loſs of Strength and Appetite. On the ſeventh or ninth Day the Miliary Eruptions appeared, or Spots like Flea-bites; with great Anxiety, a *Delirium*, Reſtleſſneſs and Toſſing in Bed. Bleeding was fatal. While Matters were in this unhappy Situation, a Midwife, of her own accord, gave to a Patient, in the Height of the Diſeaſe, a Clyſter of *Rain Water* and *Butter* without Salt, and for his ordinary Drink, a Quart of Spring-Water, half a Pint of generous Wine, the Juice of one Lemon, and ſix Ounces of the whiteſt Sugar, gently boiled till a Scum aroſe, and this with great Succeſs, for the Belly was ſoon looſened, the grievous Symptoms vaniſhed, the Patient was reſtored to his Senſes, and ſnatched from the Jaws of Death. Other Experiments were tried with the like Effect. The Author concludes from hence, that this Diſeaſe may be happily cured, if a temperate Regimen be obſerved; if no ſtrong Alexipharmics be given, but rather cooling Things; if Bleeding be ſhunned; and if in the Eruption of the Puſtules, or Spots, as well as after, lenient Clyſters be exhibited.

Of the Scarlet Fever.

THE *Scarlet Fever* may happen at any Seaſon of the Year, but it appears moſt commonly towards Autumn. It reigns chiefly among Children: It begins with Coldneſs and Shivering, as in other Fevers, without any violent Sickneſs. Afterwards the Skin is covered with *red Spots*, which are larger,

more

more florid, and not ſo uniform as the Meaſles. The Redneſs remains two or three Days, and then diſappears; then the Cuticle falls off, and leaves behind it a Sort of mealy Scales ſcattered over the Body, which appear and diſappear two or three Times.

Let the Patient abſtain from Fleſh, all hot Cordials, and ſpirituous Liquors: Let him not go out of Doors, nor be confined conſtantly to his Bed, and then Medicines will be of little Uſe:

1. ℞. *C. C. uſti Pulv. è Chel. Cancror. comp. an.* ʒſs. *Coccinel. gr.* ij. *Sacchar. Cryſtal.* ʒj. *M. f. Pulvis ſubtiliſſ. in* xii. *Chartulas dividend.* one of which may be taken every ſixth Hour, drinking two or three Spoonfuls of the following Julep after it:

2. ℞. *Aq. Alexeter. ſimp.* ℥vj. *Syr. è Succ. Limon.* ʒj. *M. f. Julep.* Or,

3. ℞. *Pulv. Contrayerv. compoſ.* ℈j. *Sal.* ʒſs. *Croc. gr.* iij. *M.* Or the *Pulv. Contrayerv.* may be given alone without the *Saffron.*

Apply a Bliſtering Plaiſter to the Neck, and every Night give a Paregoric of *Diacodium*; and after the Fever ceaſes, let the Patient be purged with a very gentle Cathartic, agreeable to the Age and Conſtitution. SYDENHAM.

There is often Occaſion for more Bliſters than one; and if the Fever is violent, there will be no Danger in lenient and emollient Clyſters.

Of the MEASLES.

THE MEASLES are an *eruptive Catarrhal Fever*, generally epidemic, which by the increaſed vital Motion of the Heart and Arteries throws on the Skin an acrid, cauſtic, inflammatory Matter, chiefly from the inward nervous Parts, in the Form of red Spots. They begin with Chillneſs and Shivering, and Heat and Cold ſucceed by Turns. The next Day the Fever comes on, with great Sickneſs, Thirſt, and Loſs of Appetite; the Tongue is white, but not dry. There is a little Cough, a Heavineſs of the Head and Eyes, and a continual Sleepineſs. There is a Sneezing and a Swelling of the Eye-lids, a ſerous Humour oft diſtils from the Noſe and Eyes, which are certain Signs the Eruption is at hand. In the Face the Spots are

ſmall, but on the Breaſt broad and red, not riſing above the Surface of the Skin. The Patient often has a Looſeneſs with greeniſh Stools.

Theſe Symptoms continue and increaſe till the *fourth*, ſometimes the *fifth* Day, at which Time Spots like Flea-bites appear, increaſing in Number and Magnitude, and in ſome Places run together, rendering the Face variouſly ſpotted. Theſe Spots conſiſt of very ſmall red Pimples, almoſt contiguous, and riſing but a little above the Skin. They may be felt by a gentle Touch of the Finger, but the Riſing cannot eaſily be diſcerned by the naked Eye.

From the Face the Spots gradually proceed to the Breaſt, Belly, Thighs, and Legs. The Symptoms do not immediately vaniſh after the Eruption, as in the Small-Pox, except the Vomiting. The Cough and Fever increaſe, with Difficulty of Breathing. The Weakneſs, and a Defluxion on the Eyes, Sleepineſs, and Want of Appetite ſtill continue.

On the *ſixth* Day, and ſometimes ſooner, the Skin of the Face and Forehead begins to grow rough, and the Cuticle breaking, the Puſtules die away; while on the reſt of the Body the Spots are broad and red. On the *eighth* Day the Spots diſappear in the Face, and are ſcarce perceivable elſewhere; on the *ninth* they quite vaniſh; fine, thin, light Scales, like Flour, falling off from the Skin at that Time. SYDENHAM.

The Meaſles in general are not dangerous, unleſs from an inſalubrious epidemical Conſtitution of the Year, which ſometimes renders them malignant. This may be known by a ſudden Loſs of Strength, Coldneſs of the extreme Parts, great Reſtleſſneſs, Vomiting, Difficulty of Swallowing, and a *Delirium*. If petechial Spots, or miliary Eruptions ſupervene, there is great Danger. A continual Cough, a Looſeneſs, and great Inquietude are bad. Profuſe Sweats are no good Sign. When the Diſeaſe is ended, if the Cough and Hoarſeneſs remain, a *Conſumption* and *Hectic* will follow, without ſpeedy Aſſiſtance.

Thoſe who die of the Meaſles are generally ſuffocated on the ninth Day. Some, when the Diſeaſe is ended, have a Looſeneſs, which continues ſeveral Weeks, and brings on a mortal *Tabes*: Some have a ſlow Fever, with an Atrophy and a Swelling of the *Abdomen*, which are fatal.

If Children are ſuſpected to abound with Crudities *in Primis Viis*, it will be proper to evacuate with half a Grain of *Tartar Emetic*, and Syrup of *Succory* with *Rhubarb*. When there are Worms, *Athelmintics* ſhould be given. In Adults abounding with Blood, Phlebotomy is neceſſary on the firſt Days. Medi-

cines

cines too hot, and cold nitrous Things, are equally hurtful. As ſoon as the Eruption is ended, a gentle Cathartic is proper.

In a *Cough* nothing is better than Oil of Almonds freſh drawn, mixt with Syrup of *Capillaire*; half a Spoonful of which ſhould be given often in Water-gruel.

To abſorbent and diaphoretic Powders, half a Grain of *Saffron* may be added.

When this Diſeaſe attacks Women who are ſubject to *hypochondriac* or *hyſteric Spaſms*, or when the menſtrual Flux is at hand, it is often attended with fainting Fits, Difficulty of Breathing, with Conſtrictions of the Throat, and great Anxiety of the *Præcordia*. Therefore the Eruptions are not to be driven out with hot Remedies, but rather with ſuch Things as allay Spaſms, paregoric and carminative Clyſters; ſometimes Bleeding, as alſo a little Caſtor and Nitre mixt with Bezoardic Powders. By theſe Means the Spots will appear in a ſhort Time.

When a *Diarrhœa* happens it muſt be cautiouſly treated, and not haſtily ſtopt; becauſe it carries off a great deal of Filth, and often puts an End to the Diſeaſe. Then it will be beſt to waſh the Acrimony of the Inteſtines by demulcent Clyſters. But if, when the Diſeaſe is over, the *Diarrhœa* continues obſtinate, it will be proper to add a few Grains of the Bark of *Eleutheria*, with Bezoardic Powders.

When there are *Hæmorrhages*, which are generally Signs of Malignity, nothing muſt be uſed that is directly aſtringent, much leſs Opiates and Anodynes. I have made uſe of the following Mixture with Succeſs:

1. ℞. *Aq. Florum Acaciæ, Sambuc. Tiliæ an.* ℥ij. *Theriacal.* ℥iij. *Antimon. Diaphoret. Diaſcord. Fracaſtor. an.* ʒſs. *Spir. Vitriol. gut.* xx. *Syr. Papav. Rhœad.* ʒij. *M. f. Miſtura.*

If the Patient falls into too profuſe a Sweat, ſo that the Linen is quite wet, it muſt be changed very cautiouſly for ſuch as is well aired and warm, otherwiſe the Spots will ſtrike in. Many have been killed in a few Hours, by a ſudden Change from hot to cold.

When the Spots are gone, the Patients ſhould not expoſe themſelves to the Air; but be careful of their Diet, otherwiſe they may fall into an *Aſthma*, ſuffocating Catarrh, or Conſumption.

Sydenham, for the Cough, orders the following Things:

2. ℞. *Decoct. pectoral.* ℔ iſs. *Syr. Violar. et Capil. Ven. an.* ℥ iſs. *M. f. apozem. cap.* ℥iij. *vel* iv. *ter vel quater in die.*

3. ℞. *Ol. Amygd. dulc.* ℥ij. *Syr. Violar. et Cap. Ven. an.* ℥j.

Sacchar. Cand. alb. q. ſ. M. f. Eclegma, de quo ſæpius lambat quando tuſſis urget.

4. ℞. *Aq. Alexeter. ſimp.* ℥iij. *Syr. de Mæcon.* ℥j. *M. f. Hauſtus.*

This is to be given every Night, from the firſt Onſet of the Diſeaſe, till the Patient recovers, increaſing or diminiſhing the Doſe according to his Age.

Let the Patient keep his Bed for two Days after the firſt Eruption.

If after the Meaſles diſappear, a Difficulty of Breathing, Fever, and other Symptoms ſhould ſupervene, reſembling an Inflammation of the Lungs, let Blood be taken away freely from the Arm, once, twice, or three Times, as Occaſion ſhall require, leaving a due Space between each Bleeding; and let the *pectoral Apozem* above preſcribed, and *Lohoch* be continued; or give Oil of Sweet Almonds alone. About twelve Days from the Invaſion, let the Patient be purged.

Dr. *Cameron*, of *Worceſter*, judiciouſly obſerves, that the coming on of theſe Symptoms, after the diſappearing of the Meaſles, is owing to the Retroceſſion of the morbid Acrimony, which raiſes a ſecondary Train of Symptoms, analogous both in Cauſe and Conſequence to the *ſecondary Fever* in the *Small-Pox*, and that this may be prevented by giving ſmall Doſes of the Bark in Subſtance, with a little *watery Extract of Myrrh* in *ſmall Cinnamon Water*, ſweetened with Sugar. By this Courſe, likewiſe, the Meaſles will keep their accuſtomed Stages, but with leſs Alarm and Diſturbance than uſual. The Fever and Cough will ceaſe on the Seventh, and the Efflorescence will not leave the Face till after the Twelfth; for the Bark prevents the Retroceſſion of the morbid Acrimony.

A Looſeneſs, which ſucceeds the Meaſles, is cured by Bleeding only. SYDENHAM.

MEAD obſerves, that this Diſeaſe is of kin to the *Small-Pox*, and requires a Management not very different from the ſame: That Blood muſt be taken away at the Beginning, according to the Age and Strength of the Patient; that it is beſt to do this before the Eruption of the *Puſtules*, but if they are already come out, it muſt, however, be taken away: For the greateſt Danger is *an Inflammation of the Lungs*, which cannot be prevented too ſoon; therefore in the Height of the Fever, it is ſometimes neceſſary to repeat it; and in the End of the Diſeaſe, when the Scales are falling off, it will be a greater Error not to open a Vein again, that by this Means the Flux of the Humours upon the Breaſt and Inteſtines, and the Symptoms of a *hectic Fever* and *Conſumption*, may be happily prevented.

The

The *Diet* ought to be the same as is prescribed in the *Small-Pox*, taking particular Care that the Body be kept lax rather than bound up, through the whole Course of this Distemper.

As to the Remedies; to those *cooling ones* which are directed in the *Small-Pox*, must be added, such as abate the Cough, and help Expectoration; particularly the *Oily Linctus* and *Pectoral Infusion*, of which, with the Addition of a little *Nitre*, the Patient may drink plentifully.

Sydenham was not cautious enough, in giving *Diacodium* on the first Days of the Illness; because it thickens the Humours, straitens the Breast, and retards the Eruption of the Pustules. Therefore during the Increase of the Distemper it is to be used sparingly; but at the latter End, Opiates are of great Service in quieting the Cough, and preventing a Hectic Fever and Consumption.

In the mean Time, *Purges* are to be given at due Intervals. *Milk*, especially that of Asses, is to be drank; and Exercise, suitable to the Strength of the Patient, is to be daily enjoined.

Of the Small-Pox.

THE Small-Pox is commonly divided into two Kinds; the *Distinct* and *Confluent*.

The Distinct Sort begins with Chillness and Shivering, intense Heat, a violent Pain of the Head and Back, an Inclination to vomit: In Adults, a great Propensity to sweat, (a Sign that the Pox will not run together;) a Pain at the Pit of the Stomach, if it be pressed with the Hand; a Dulness and Drowsiness, and sometimes epileptic Fits, especially in Children; and if the Breeding of Teeth is over, it is a Sign the Small-Pox is at hand; for if the Fit happens over Night, the Small-Pox will appear in the Morning; and are, generally speaking, of the favourable Sort.

On the *fourth Day from the Beginning*, they break out, sometimes later, seldom before, at which Time the Symptoms either abate or wholly disappear.

The *Spots* at first are *reddish*, and spread themselves over the Face, Neck, Breast, and the whole Body. Then there is Pain in the *Fauces*, which increases as the Pustules grow turgid.

On the *eighth* Day, the *Spaces* between the Pustules, which hitherto were *white*, begin to grow *red* and swell, and to be affected with a *tensive Pain*. The Eyelids are puffed up, and close

the Eyes; next to the Face, the Hands begin to ſwell, and the Fingers are diſtended; the Puſtules of the Face, before ſmooth and red, begin to be rough (the firſt Sign of Maturation) and whitiſh, and throw out a yellowiſh Matter, in Colour like a Honey-comb.

The Inflammation of the Face and Hands being now at the Height, the Interſtices between the Puſtules are of the Colour of Damaſk Roſes; and the more mild the Diſeaſe is, the greater is the Likeneſs.

The Puſtules about the Face, as they ripen, grow more rough and yellow. But on the Hands, and the other Parts of the Body, they grow whiter and leſs rough.

On the *eleventh* Day the Swelling of the Face and Inflammation diſappear, the Puſtules being ripe, and of the Size of a large Pea, grow dry, and fall off.

On the *fourteenth* or *fifteenth* Day they periſh entirely, except ſome obſtinate Puſtules on the Hands, which continue a Day or two longer, and then break. The reſt come off in branny Scales, and in the Face leave Pits behind them.

Through the whole Courſe of this Diſeaſe the Patient's Body is either wholly bound, or he goes to ſtool but very ſeldom. Generally thoſe who die of the Small-Pox, die on the *eighth Day* in the *Diſtinct*, and on the *eleventh* in the *Confluent Sort*. Then the Face, which ought to be turgid, and the Interſtices florid, on the contrary is flaccid and whitiſh, at the ſame Time that the Puſtules are red and elevated, even after the Death of the Patient. The *Sweat*, which was injudiciouſly promoted by *Cordials* and a *hot Regimen*, ſuddenly ceaſes; in the mean while the Patient is ſeized with a Phrenzy, a violent Anxiety, a Toſſing and Sickneſs; he makes Water often and little, and a few Hours cloſe the tragical Scene.

In the *Confluent Sort* there are the ſame Symptoms, but much more violent. The *Fever*, *Anxiety*, *Sickneſs*, *Vomiting*, *&c.* more cruelly torment the Patient; yet he does not ſo ſoon fall into a Sweat, as in the *Diſtinct Kind*. A Looſeneſs ſometimes precedes the Eruption, and continues a Day or two after it.

On the *third* Day, ſometimes before, ſeldom later, the Spots appear, and the ſooner, the more will they run together. Sometimes the Eruption is retarded till the *fourth* or *fifth* Day, by ſome terrible Symptom, ſuch as, a moſt acute Pain in the *Loins*, like a *Fit of the Gravel*; in the *Side*, like a *Pleuriſy*; in the *Joints*, like the *Rheumatiſm*; in the *Stomach*, with a *Sickneſs* and *Vomiting*.

But the Symptoms do not remit after the Eruption, as in the *Diſtinct* Sort; but the *Fever* and other Complaints continue to moleſt

moleſt the Patient many Days after. Sometimes the *Spots* appear like an *Eryſipelas*, ſometimes like the *Meaſles*, but are diſtinguiſhed from them by the Time of the Eruption. As the Diſeaſe increaſes, they do not riſe to any conſiderable Height, being intangled with each other in the Face, but appear like a *red Bliſter*, and cover all the Countenance, which ſwells ſooner than in the *Diſtinct* Kind. Afterwards they ſeem not unlike a *white Pellicle* glued to the Face, and are not much higher than its Surface.

The *eighth Day* being paſt, the *white Pellicle* grows daily more rough, and of a duſky Colour. The Pain of the Skin becomes more intenſe, and at laſt, in the more cruel Kind of this Diſeaſe, they do not fall off in broad large Scales, till after the *twentieth* Day. But this, in the mean Time, is worthy of Obſervation, that the more the ripening Puſtules are of a *browniſh* Colour, they are the worſe, and the longer in falling off; and the more *yellow* they are, the leſs they run together, and the ſooner they diſappear.

When the *Pellicle* falls off, there is no Roughneſs on the Face, but branny Scales ſoon appear in its Room, of a very corroſive Nature, which leave deep Pits behind them, and ſometimes ugly Scars; ſometimes the Shoulders and Back are quite deprived of their Cuticle.

The Danger of the Diſeaſe is to be eſtimated from the Number and Multitude of the *Puſtules* on the Face alone. The *Puſtules* of the Hands and Feet are the greateſt; and the farther they are removed from the Extremities, the leſs they are; in Adults a *Salivation*, and in Children, a *Diarrhœa* is a Sign, though not always, of the *Confluent* Sort. The Spitting ſometimes begins with the Eruption, ſometimes two or three Days after it; the Matter is at firſt thin, but on the *eleventh* Day it is viſcid, and hawked up with Difficulty; the Patient is thirſty and hoarſe, extremely ſleepy, and his Senſes exceeding dull: He ſometimes coughs when he is drinking, and the Liquor regurgitates through his Noſtrils: Then the Salivation generally ceaſes, but the Swelling of the Face ought not to go down quite till a Day or two after, when the Spitting is over; if the Hands do not begin to ſwell remarkably, and continue ſo for ſome Time, the Patient will ſuddenly leave the World.

The *Diarrhœa* does not ſo ſoon attack Children as the *Salivation* does Men. In both Sorts of this Diſeaſe the Fever predominates from the firſt Onſet till the Eruption; then it abates till the Puſtules are ripe, at which Time it terminates.

A *bad Regimen* cauſes many *irregular Symptoms*, ſuch as a Flaccidity and Subſiding of the Puſtules, a Phrenzy, a *Coma*, purple

purple Spots intermixed with the Puſtules, and ſmall black Spots on the Top of the Pox, ſubſiſting in the Middle, (which are almoſt always a fatal Sign,) at the Beginning of the Diſeaſe bloody Urine and Spittle, and Suppreſſion of Urine.

The Day on which the Patient is moſt in Danger, in the leaſt crude and moſt common Sort of the *Confluent*, is the *eleventh* from the firſt Attack of the Diſeaſe; in the more crude, the *fourteenth*, and in the moſt crude, the *ſeventeenth*: Sometimes, but very ſeldom, the Patient does not die till the *twenty-firſt*. But in the Space of Time from the *eleventh* to the *ſeventeenth*, as the Evening comes on, the Patient is daily tormented with a Fit of Inquietude. SYDENHAM.

Moſt Authors divide the *Small-Pox* into the *Diſtinct* and *Confluent* Sorts; but, in my Opinion, it more accurately and agreeably to the Nature of the Diſeaſe may be divided into *Simple* and *Malignant*.

The *Simple Sort*, is that in which the Eruption is attended with a ſlight Fever of a ſhort Duration, the Puſtules fill kindly, make good Matter in a few Days, and at laſt fall off in dry Scabs.

The *Malignant Sort*, is that in which the Eruption appears with a malignant Fever, the Puſtules hardly come to any tolerable Degree of Maturity, and either ſuppurate not all, or, if they do in ſome Meaſure, as the Fever is never off, it is with great Trouble; they at length end in little Cruſts.

The *Malignity* appearing in various Forms, has given various Appellations to the *Small-Pox*; but the Differences which have fallen under my Obſervation, are theſe that follow; the *Cryſtalline*, the *Warty*, and the *Bloody*.

The *Puſtules* of the *Cryſtalline*, inſtead of thick, well-digeſted Matter, contain nothing but a thin, pale Water, and are in ſome meaſure *pellucid*. And this Sort is ſometimes obſerved in the *Diſtinct* as well as the *Confluent*. Sometimes the Fluid flies off and leaves hollow Bladders.

The *Warty Puſtules* contain no Fluid, but grow hard and prominent above the Skin, like Warts: Theſe are peculiar to the *Diſtinct* Sort.

The *Bloody Puſtules* are produced more Ways than one. For, ſometimes at the very Beginning of the Diſeaſe, the Puſtules are ſmall Tubercles full of *blackiſh Blood*, as if the Skin were pinched with a *Forceps*. Then *purple* and *livid Spots* follow, ſuch as are deſcribed in the true Plague. But it more frequently happens, that the Puſtules coming out very thick, on the *third* or *fourth* Day after, when they ought to fill, become *livid* and a *little bloody*, with *black Spots* ſpread over the whole Body; which forebode

forebode Death in a Day or two, being *real Gangrenes*. It very often falls out at this Time, that a thin Blood flows not only out of the Patient's Mouth, Nose, and Eyes, but also by every Outlet of the Body, more especially by the urinary Passages, as it does sometimes on the first Days of the Distemper. These are manifestly of the *Confluent* Sort.

In the *Management* of the Patient in the *Distinct Sort*, Regard should be had to the Season of the Year, and the Strength of the Patient. *Let this be a general Rule*, To keep the Patient in Bed during the first Days of the Distemper, taking Care to defend him from the Inclemency of the Winter by proper Means; and to moderate the excessive Heat in Summer by cool Air: For the Patient ought not to be stifled by Heat and Cloaths, nor should the Eruption and Perspiration be checked by Cold. However, great Care ought to be taken in general to supply him with pure and cool Air; because a hot Air causes Difficulty of Breathing, checks the Secretion of Urine, and increases the Number of Pustules on the internal Organs of the Body; the Consequence whereof we may justly apprehend to be *Inflammations*, *Suffocations*, and, towards the End of the Disease, *Gangrenes*.

With regard to DIET, it ought to be very slender, moistening, and cooling; such as *Oatmeal*, or *Barley-gruel*; and in the Beginning, the best *Regimen* is that which keeps the Body open, and promotes Urine. This End is obtained by boiling preserved Fruits with their Food, such as *Figs*, *Damascene Plums*, and *Tamarinds*, and by giving them subacid Liquors for Drink; as *Small Beer acidulated with Orange or Lemon Juice*; *Whey turned with Apples, boiled in Milk*; *Emulsions made with Barley-water and Almonds*; *Moselle, or Rhenish Wine, plentifully diluted with Water*; or any other Things of this Kind.

When this Sort of Diet did not keep the Body open, the *Arabian* Physicians prescribed *Manna*, but sparingly. For *the keeping the Body open in the Beginning* is a most important Advice, if the making of Urine also be promoted, so as to discharge it plentifully. MEAD.

In the *Cure*, *Sydenham* directs Bleeding on any of the three first Days to nine or ten Ounces; and then an *Ounce*, or an *Ounce and an half of Emetic Wine*. But some Physicians will not allow a Vomit by any Means, unless there is a *Nausea*, and the Head is much affected. Yet *Hoffman* judges it to be proper on the first Day of the Invasion, and prescribes two Grains of *Emetic Tartar* dissolved in *Cinnamon Water*, to Adults.

Mead, in the first place, advises Bleeding even to Children, and affirms, that when they are seized with Convulsions at the Onset

Onſet of this Diſeaſe, ſome Evacuation *ought* to be made, which may be done ſafely by Leeches applied to the Temples, or behind the Ears. Likewiſe, if Blood cannot be drawn from the Arm, in younger Subjects, either of the Jugulars may be opened without any Inconvenience.

That Regard is to be had to the Patient's Strength is allowed, but the Weakneſs is ſeldom ſo great as not to allow ſome Loſs of Blood. And when the Pulſe is low, becauſe the vital Fluid is not propelled from the Heart with due Force, ariſing from a Thickneſs of the Blood, by removing the Oppreſſion, the Patient's Strength is obſerved even to increaſe with the Bleeding.

In *Youths* and *Adults*, it is often neceſſary to take away Blood two or three Times, only with an Intermiſſion of two or three Days between each Time. Blood-letting is ſo far from being an Obſtacle to the Eruption of the Puſtules, if the Patient is not too weak, that it forwards it conſiderably. When the vaſt Number of ſmall Puſtules foreboded a Diſeaſe of the worſt Kind, the Face of Affairs has been ſo remarkably changed upon one or two Bleedings, that the Puſtules increaſed in Size, and diminiſhed in Number. It alſo prevents a *Delirium*, Convulſions, Difficulty of Breathing, and the like. Bleeding may be uſed at all Times when the Violence of the Fever requires it, and the Patient is able to bear it.

A *Phrenſy* coming on the *fourth* Day of the Eruption has been juſtly eſteemed a fatal Omen; yet many have been ſaved by *drawing Blood* immediately, and then throwing in a *Clyſter*.

After Bleeding, a *Vomit ſhould be given*, if the Stomach abounds with *Phlegm* or *Bile*, or be loaded with Food unſeaſonably taken. Otherwiſe a *Purge* may be preſcribed *before the Eruption of the Puſtules*. Which may be the Infuſion of *Senna* with *Manna*, or *Manna* alone, eſpecially for Children; for no Diſturbance is to be raiſed in the Body. MEAD.

[*Hoffman* ſometimes adds *Manna*, or *Tartar Emetic*, to looſen the Belly at the ſame Time. And for a *Purge* he gives the Decoction of Tamarinds, with *Rhubarb* and *Manna*; and if there is Ground to ſuſpect that the groſs Inteſtines are ſtuffed with *Scybals*, he directs an emollient and ſtimulating Clyſter: And adviſes to procure the Patient a Stool within eight or ten Days.]

In the firſt Days, the Blood may be diluted with *hopped Small Beer*, which may be acidulated with Spirit of Vitriol till the Eruption is completed. SYDENHAM.

To keep the Inflammation of the Blood within due Bounds, and to aſſiſt the Expulſion of the morbific Matter through the Skin:

℞. *Pulv. Bezoard.* ℈ ſs. *Nitr. Purificat.* ʒ ij. *M. F. Pulvis.*
Half a Dram of this may be taken by an Adult three or four Times in a Day; diminiſhing the Quantity for Children in Proportion to their Age.

Sometimes equal Parts of theſe Ingredients may be preſcribed; and, if the Effervescence of the Fever runs very high, a proper Quantity of the *Spirit of Vitriol* may be added to the Patient's Drink. But if there be any Keckings and Reachings to vomit, they will be removed by *Draughts* containing *half an Ounce of the Juice of Lemon with one Scruple of the Salt of Wormwood.* MEAD.

Dr. *Cameron* obſerves, that in the milder Kind of the Small-Pox the Fever is ſeparated by two perfect Intermiſſions; and though in the malignant Sort they run into each other, yet the Traces of the Limits may be diſcerned by ſome Degree of a Remiſſion. The *Firſt* of theſe is the *Fever of Deſpumation*, cauſed by the circulating variolous Matter. The Buſineſs of this is to protrude the Matter to the Surface of the Body, and the complete Eruption is its *Criſis*. Now as no Patient ever died for Want of a ſufficient Eruption, Nature at this Time needs a Bridle, and very ſeldom a Spur; becauſe the Danger is meaſured *cæteris paribus* by the Number of the Puſtules. Therefore in this Fever it will be proper to keep the Patient low, and to be very free in the Uſe of Nitre, or Vegetable or Mineral Acids, according to the State and Texture of the Blood.

The next *Fever is that of Maturation*, cauſed by the ſtationary variolous Matter; the Intention of which is to ripen it into laudable Pus. The Time of the complete Production of this is the *ſecond Criſis*. Here *Broths*, *Jellies*, *ſmall vinous Liquors*, the *Bark*, and *Myrrh*, are uſeful and neceſſary. But the Method of preventing bad Symptoms, which in the Courſe of twenty Years Experience I have found to be of great Uſe, is as follows: On the Day before the Face is expected to ſink, the Arms and Legs muſt be wrapt up lightly in a *ſuppurating Cerate*, for Inſtance, the *Citrine*, ſpread on Linen Rollers, and tacked together ſo as to make one continuous Plaiſter. This greatly facilitates the Tranſlation of the *acrid Serum* from the Face and Head to the Limbs, promotes the Suppuration of it when tranſlated, and preſently removes the burning Pain, which is uſually ſo inſupportable in thoſe Parts, at this Time of the Diſeaſe. In leſs than an Hour after the Application of theſe Plaiſters, adult Patients have cried out joyfully, *they were in Heaven.* The *Puſtules*, as far as the Plaiſter reached, have ſometimes ripened and filled with laudable Pus, even to burſting;

ing; and this dangerous Period has paſſed over without an alarming Symptom.

The *third Fever* is that *of Retroceſſion*. The Operation and Criſis of this are various, both as to Time and the Manner of Termination; therefore the Medicines muſt be varied accordingly. This is cauſed by the Retroceſſion of the morbid Matter from the Skin, and is commonly called the *Secondary Fever*. There are two Kinds of this Matter, the *Pus*, and a *cauſtic Serum*; which laſt colours the Baſis of the Puſtules, and has been ſtagnating and corrupting there ever ſince the Eruption. The concocted Pus is never reſorbed, nor could it excite ſuch a dangerous Fever if it were. But the very Moment the *Baſes of the Puſtules* loſe their fiery Colour, this Fever kindles as with a Flaſh of Lightning. Hence it is highly probable, the cauſtic Acrimony of the reſorbed Serum is the Cauſe of this Fever. *Bleeding* at this Juncture, though recommended by high Authority, is very improper; but it will be convenient to preſcribe *nitrous Abſorbents*, *Analeptics*, and Plenty of diluting, abſorbent Liquors. This Method, in ſeemingly deſperate Caſes, has ſucceeded beyond Expectation. The Hurricane on the eleventh Day has gradually ſubſided, and ended in a perfect Calm by the fifteenth, *without Bliſtering or Bleeding*. CAMERON.

When the Eruption of the Puſtules is compleated, which generally happens on the ſixth Day from the Attack, let the Patient take an Ounce of *Diacodium* every Evening till the tenth Day after the Invaſion. On that Night, if the *Small-Pox* be of the *Confluent Kind*, the Doſe muſt be increaſed to an Ounce and a half; and an *Ounce* in the Morning; and ſo an Ounce and a half every Night till the Patient is recovered.

If the *Diacodium* ſhould not agree with the Patient, he may take *liquid Laudanum*, viz. xviij Drops for ℥j. of the Syrup, and xxv Drops for ℥iſs. But it is to be noted, that if the Paregoric taken twice in a Day is not ſufficient to appeaſe the Commotion, which often happens towards the End, in the *Small-Pox* which remarkably run together, then it is to be given every eighth Hour, or oftener if there be Occaſion.

But in the *Diſtinct Sort*, it will be ſufficient to give a Paregoric every Evening, and in a leſſer Doſe, after the compleat Eruption of the Puſtules.

Yet whatever are the Sort, and at whatever Time of the Diſeaſe a *Phrenſy* ſhall happen, it is to be curbed by *Paregorics*, given one after another till the End is obtained, only waiting to ſee the Effects of one Doſe before another is ordered. SYDENH.

Medicines that procure Sleep, ſays *Mead*, are not to be uſed over haſtily; for all *Anodynes* in ſome Meaſure obſtruct the Separa-

Separation of the morbific Matter from the Blood, *unleſs the Pain happens to be exceſſive:* And moreover, if the Violence of the Fever has raiſed a *Delirium*, they generally make it worſe. Wherefore, it is not proper to employ them till the Eruption of the Puſtules is compleated; and then they may be adminiſtred with Safety. Theſe Medicines agree not ſo well with Infants, but Adults may take a Doſe of *Thebaic Tincture* every Evening, and in Caſes of *great Inquietude*, the Doſe may be repeated in the Morning; for the Suppuration of the Matter ſtagnating in the Puſtules is forwarded with Quiet and Sleep. But if towards the End of the Diſeaſe the Patient happens to be ſeized with *Shortneſs of Breath*, or *Danger of Choaking* from viſcid Slime, theſe Medicines are to be entirely prohibited.

In the mean time, if the *Patient is coſtive*, which is generally the Caſe, and the Fever continues, the Body is to be opened with a Clyſter every ſecond or third Day.

If this Method is proper in the Diſtinct Small-Pox, *it will be found more neceſſary in the Confluent*, which is attended with greater Fear and Danger.

In the *Cryſtalline* Sort of the *malignant Small-Pox* the Water of the Puſtules can never be brought to a laudable Suppuration. Therefore, while the *thinner* Parts are made to tranſpire through the Skin, the groſſer ought to be drawn off through the *Urinary Paſſages*, by *diuretic Medicines*. To this Purpoſe *Nitre* may be adminiſtred three or four Times a Day, from a *Scruple* to *half a Dram* in ſmall Wine, which is the only Sort that agrees with this Diſeaſe, till towards the End, and then the Patient may be allowed a little *Canary*, or any other ſoft or generous Wine, to ſupport his Strength. While *Nitre* is thus taken, it will be right to interpoſe Medicines which cheriſh the Heart, and promote the Flux * of the Humour into the Puſtules, ſuch as *Ralegh's Cordial*, or the *Cordial Confection*; the *Bezoardic Powder*, ſometimes with a little Saffron, and the *plain Spirit of Hartſhorn*.

Beſides theſe, on the *fifth* or *ſixth* Day of the Eruption, *Bliſters* are to be applied between the Shoulders, and to the Arms and Legs. For which Purpoſe the *bliſtering Epithem* is moſt convenient. By thus *diſcharging the Seroſities*, the *Fever*, which increaſes when there is no farther Derivation of Humours to the Skin, is ſeaſonably prevented.

The *Warty Small-Pox* is more dangerous than the *Cryſtalline*, becauſe the Matter of the Diſeaſe being *too thick*, can neither *ſuppurate* nor paſs off by Urine. Wherefore it is neceſſary to uſe the utmoſt Endeavours to take off the *Fever*, and

* Concerning this ſee farther, Page 163, following.

to

to *provoke a Sweat*, in order to digeſt the morbid Humour, by the *Cordial Medicines above mentioned.* And *Bliſters* ought to be applied in this Caſe likewiſe. But the *Arabian Phyſicians* pronounced this Sort of the Diſeaſe to be always fatal.

The *Bloody Small-Pox* requires peculiar Attention. Now in this Sort, if any good can ariſe from Phyſic, thoſe Medicines bid faireſt for Succeſs, which by their *Stypticity* in ſome Meaſure thicken the Blood, and ſo check it, that it cannot break through even the ſmalleſt Arteries. The beſt of this Kind are the *Peruvian Bark*, *Alum*, and *Oil of Vitriol*; which are beſt uſed alternately in this Manner. A Dram of the *Bark* may be given every ſixth Hour; and three Hours after a proper Quantity of *Alum.* It will be a very powerful Medicine if thus compounded; melt three Parts of *Alum* with one Part of *Dragon's Blood*, over the Fire, and when the Maſs is grown cold, reduce it to a Powder, a Scruple of which made in a *Bolus* with *Conſerve of Roſes*, will be a proper Doſe. The moſt convenient Manner of giving the *Oil of Vitriol*, is in the *Tincture of Roſes*; of which *Tincture* five or ſix Spoonfuls may be taken ſeveral Times in a Day; and the Patient's common Drink may be acidulated with it, eſpecially if *Purple* or *Black Spots* appear interſperſed among the Puſtules. And this Medicine will be of great Service not only in the *Bloody*, but in all other Sorts likewiſe, accompanied with theſe Spots: *Bliſters* in this Caſe are ſafe enough when a *Delirium* requires their Application.

[*Hoffman* affirms, that *Hæmorrhages* in the *Small-Pox* are better relieved by *Buttermilk* and *Whey*, than any other Medicine whatſoever.]

In every Sort of this Diſeaſe, it is proper to *open the Body* on the Decline, that is, on the *ninth* or *tenth Day* from the Eruption, becauſe a *putrid Fever* generally comes on about that time, while the Puſtules are drying, or upon the Subſidence of the Swelling of the inflamed Skin where there is no Suppuration, which Fever cannot be taken off with equal Safety by any other Means; but *gentle Cathartics* alone are to be employed in this Caſe, ſuch as were directed before the Eruption of the Puſtules.

[Or thus,

2. ℞. *Man. optim.* ℥j. *Diſſolve in Aq. Alexeter. ſim.* ℥iij. *Colatur. adde Pulp. Caſſiæ* ℥ij. *Aq. Alexeter. Spir.* ℥ſs. *M.F. Potio.*]

If the Patient's Body happens to be looſe, this Remedy becomes leſs neceſſary, or may be poſtponed for ſome Days. Alſo, when there is any purulent Matter lurking under the

withered Skin of the Puſtules, the Body is not to be purged, but rather to be ſupported by proper Diet till the Matter is all come away. This ſometimes has run till the twenty-fourth Day of the Diſeaſe, and yet the Patient recovered.

It will alſo be of Uſe at this Time to *take away ſome Blood*, if the Heat be too great, and the Patient has Strength to bear it. MEAD.

This *Putrid Fever*, is by *Sydenham* called the *ſecondary Fever*, which comes on with Heat, Inquietude, Toſſing, *&c.* and, unleſs prevented, takes off the Patient in two or three Days. He mentions this Fever as coming on the *eleventh* Day, or later; but this is to be underſtood from the Time of the Invaſion, whereas *Mead* reckons from the Time of the Eruption. *Sydenham* preſcribes large Bleeding, and a Cathartic two Days after, viz. *Elect. Len.* ℥j. *diſſolut. in Aq. Alexeter. ſim.* ℥iv. together with the free Uſe of *Paregorics*. And here it will not be improper to take Notice, that *Simſon*, Profeſſor of Medicine at *St. Andrew's*, inveighs againſt the Uſe of *Diacodium* in the Small-pox, unleſs in Caſe of Pain, and then he gives a Clyſter with it. But his chief Reaſon is, that it renders the Body coſtive, which he looks upon as very hurtful. This Objection is guarded againſt in the above Method, extracted from Dr. *Mead*.

If there is an entire Suppreſſion of Urine, the Patient is to be taken out of Bed, and made to walk a little about the Room. SYDENHAM. [Concerning *Bleeding* in this Fever, ſee p. 155.]

This generally has a good Effect; but the moſt convenient Method will be to open the Body with a *Clyſter*, eſpecially if the Puſtules now appearing, there be any Fear of taking Cold; and then to inſiſt a little on *diuretic Medicines*; for which Purpoſe *Glauber's Salt* is particularly uſeful, as it is both *laxative* and *diuretic*. Its Doſe is from ℥ſs. to ℥j. diſſolved in an aqueous Vehicle. MEAD.

The beſt Medicine in this Caſe is *Salt of Amber*: And as for the taking Patients out of Bed, this Practice has often been attended with fatal Effects, agreeable to what *Hoffman* ſays in his Diſſertation *De ſitu erecto in Morbis periculoſis valde noxio*. CAMERON.

If the Spittle, through Heat, is ſo tough that it cannot be hawked up, let a *Gargle* be frequently injected into the Throat with a Syringe. It may be compounded of *Barley-water* and *Honey of Roſes*: Or the following may be preſcribed,

3. ℞. *Cort. Ulmi*, ʒvj. *Lad. Glycirrhiz.* ℥ſs. *Paſs. inucleat. No.* xx. *Roſ. rub. pug.* ij. *Coq. in q. ſ. Aq. ad.* ℔ iſs. *in Colatur. diſſolv. Oxymel. ſimp. et Mel. Rojar. an.* ℥ij. *M. F. Gargariſma.* SYDENHAM. [Or,

4. ℞. *Decoct. Pect.* ℔ iſs. *Aq. Alexeter. ſp.* ℔ ſs. *utatur Æger pro Garg. & Potu etiam ordinario.*]

When the *Matter of Salivation* grows very viſcid and begins to clog the *Larynx* and *Trachea*, ſome preſcribe a Vomit, but very improperly. The beſt Method is to boil *Marſh mallows*, *Myrrh*, and *Honey*, in a ſufficient Quantity of Water and Vinegar, and to tranſmit the Steam of the Decoction into the Patient's Mouth, through a Glaſs or Tin Tube, of ſuch a Shape and Length as is moſt commodious for a recumbent Poſture. By this Method the Breath of the Patient will be impregnated with an effectual topical Medicine; for twenty-two Years Experience has ſhewn the Certainty and Value of it. CAMERON.

From the eighth Day to the End of the Diſeaſe, *Garlick* may be applied to the Soals of the Feet, which muſt be renewed every Day, eſpecially when the Brain is affected.

When the Puſtules are perfectly dry and withered, the Face may be anointed with a *Liniment*, made of equal Parts of *Oil of Sweet Almonds* and *Pomatum*, for two Days, and no longer.

Twenty-one Days after the Invaſion let a Vein be opened in the Arm, and the next Day give a *Cathartic*, which may be repeated every other Day three Times more. SYDENHAM.

This is neceſſary, becauſe no Species of Fever requires the Body to be thoroughly cleared of the Remains of the Diſeaſe more than this. After the *Cathartics*, the Body is to be reſtored to its former State by a Courſe of Milk; eſpecially that of Aſſes, with ſuitable Food, and the Air and Amuſements of the Country.

As there are particular *Accidents* in the Small-pox which do not commonly occur, it will be proper to ſay ſomething of them. Sometimes the *Patient is ſeized with Convulſions* juſt before the Eruption, which is rather a *good* than a *bad Sign* in *Children*. In this Caſe *Blood-letting* is carefully to be avoided; but a *Bliſter* is to be applied to the Neck; and to the Soals of the Feet. Plaiſters made of equal Parts of the *Cephalic* and *Bliſtering Plaiſters*; not forgetting to give *antiſpaſmodic Medicines* inwardly. The chief are *wild Valerian-root*, *Ruſſian Caſtor*, and the Spirits of *Volatile Salts* chemically extracted from Animals.

In

In *Adults* the thing is otherwiſe; for they, if not too weak, may loſe a moderate Quantity of Blood, and then be put into the foregoing Method.

Or, 5. ℞. *Corn. C. ppt.* ʒſs. *Caſtor. gr.* vij. *Sal. Volat. C. C. gr.* v. *M. F. Pulvis, exhibe ex Aqua aliqua convenient.* Or,

6. ℞. *Rad. Valerian. Sylv.* ʒſs. *Sal. Volat. C. C. gr.* v. *Camph. gr.* ij. *M. F. Pulvis, exhibe ex Aq. Alexeter. ſimp.* Theſe are for Adults.

Haller tells us, that *Camphire* aſſiſts greatly in filling the Small-Pox of the *Confluent* Kind with *Petechiæ*; and *Monro*, that the *Peruvian Bark* does the ſame; that it filled the *empty Veſicles* with Matter, changed the *watery Sanies* into thick white *Pus*, made the *Petechiæ*, or Spots, turn gradually to a pale Colour, and cauſed the Pox to blacken ſooner than was expected. The Doſe, *in Powder*, is from *ten* to *twenty Grains* in ſome *rich Syrup*, with an aromatic diſtilled Water, every four or five Hours. Children may take it in a *Clyſter*, with a ſmall Quantity of warm Milk, after the Bowels are unloaded with a preparatory *Clyſter*. If the *Clyſter* ſhould be retained too ſhort a Time, *Syrup of Poppies* to be added, or *Diaſcordium*. Theſe Injections to be repeated Morning or Evening, or oftener. The *Bark* has had good Effects in mitigating the *ſecondary Fever*. When the Lungs are greatly ſtuffed, it is not to be given.]

When the *Eruption appears without much Fear or Pain*, it is yet not without Danger; for the Puſtules frequently do not tend to Maturity, and there is no Suppuration made. Hence the Fever increaſes with Inquietude of Body, Anxiety of Mind, Difficulty of Breathing, and a *Delirium*, which carry off the Patient in a few Days. In this State, *the Fever ought rather to be raiſed than checked*, and then warm Medicines are to be directed, which promote Suppuration, by increaſing the Motion of the Blood, and thinning the Humours, ſuch as *Virginia Snake-root*, *Contrayerva-root*, *Saffron*, *Aſſa-Fœtida*, *Myrrh*, and the like.

7. ℞. *Rad. Contrayerv.* ʒſs. *Rad. Serpent. Virgin. Croc. an. gr.* v. *M. F. Pulvis.* Or,

8. ℞. *Rad. Serpent. Virgin. gr.* xij. *Rad. Contrayerv. gr.* vi. *Myrrh. Croc. an. gr.* v. *M. F. Pulvis.* Or,

9. ℞. *Rad. Serpent. Virgin. gr.* xv. *Caſtor. Croc. an. gr.* v. *M. F. Pulvis.*

Theſe are each for one Doſe, and may be taken every four or five Hours in any proper Julep, or other Vehicle. But, above all, *Bliſters* muſt be laid on the Limbs.

When the Matter of the Infection is overabundant, as it happens in bad Cases, Nature never fails endeavouring to throw off the Load. Thus, in *Adults* a *Spitting* comes on upon the first Days of the Eruption, whereas Children have a Looseness almost through the whole Disease, which is not to be inconsiderately stopped. So again in Adults, if the Spitting does not go on to our Wishes, it ought to be promoted by Medicines which stimulate the Glands of the Mouth, especially *Gargles* made of a *Decoction* of *Mustard-seed* and *Pepper*, with the Addition of *Oxymel*. For in the *Confluent* and *Malignant* Small-Pox, if this Flux does not arise and continue to the End of the Disease it is a very bad Sign.

Whenever a *Woman with Child* is seized with the Small-Pox, there is Reason to fear a Miscarriage, which is dangerous from the *new Fever* that supervenes this Accident, and from the Loss of Blood, which may bring her very low; and the nearer she is to her Time, the greater Risque she runs. Yet there have been frequent Instances of both Mother and Child doing well. A good deal depends on the Time of the Disease when the Abortion happens; because, the more nearly it coincides with the Time of ripening the Pustules, the more Danger it occasions. Wherefore, if the *Efflux be more than Nature usually requires*, the Medicines used in the *Bloody Small-Pox* are to be given.

Women's *Monthly Evacuations* coinciding with the Small-Pox, whether they happen at the usual Time, or are brought on irregularly by the extraordinory Effervescence of the Blood, in both Cases rather afford Relief, than threaten Danger. But, if the Discharge should be so great as to weaken the Patient overmuch, the Medicines recommended in the *Bloody Small-Pox* will be here also beneficial; not neglecting to draw Blood if requisite.

Likewise *Bleeding* at the Nose in the Beginning of the Distemper, by diminishing the Heat, is rather serviceable than detrimental, if not too excessive.

It sometimes happens, though not often, that the Variolous Fever is accompanied with a *single* or *double Tertian*; in which Case the *Peruvian Bark*, or its Extract, is to be given at proper Distances of Time, till the Fits cease to return. But first, the Body is to be opened with a Clyster. Nor will this Medicine hinder the Maturation of the Pustules, but the contrary.

This is a *general Rule*, that whatever *acute Disease* comes upon the *Small-Pox*, it must be treated with its own *peculiar Medicines*. MEAD.

Of Inoculating *the* Small-Pox.

THE very ſalutary Practice of *Inoculating the Small-Pox* being at this Time moſt firmly eſtabliſhed in every Part of *Europe*, eſpecially *Great Britain*, I ſhall here wholly omit every thing that has appeared about it, of a controverſial Nature, in former Editions of this Work, and confine myſelf to a ſuccinct Abſtract of the Method of Dr. DIMSDALE, which has juſtly acquired him the greateſt Reputation and Honours, both at Home and Abroad.

In regard to Age, where it is left to his Choice, he declines inoculating Children *under two Years old*, as they are expoſed to the Hazard of Dentition, Fevers, Fluxes, Convulſions, *&c.* inſomuch, as ſcarce two in three of all that are born arrive at that Age: beſides, young Children have uſually a larger Share of Puſtules from Inoculation, than thoſe advanced a little further in Life; and under this Circumſtance, it is well known, many have died: Nor does there appear any Reaſon to exclude healthy Adults of any Age, ſome of Seventy having gone through it with the utmoſt Eaſe.

As to Conſtitution, Perſons afflicted with various chronic Complaints, *ſcrophulous*, *ſcorbutic*, *arthritic*, *corpulent*, *intemperate*, *&c.* have all recovered with the ſame Eaſe as the moſt healthy, temperate, and regular. But ſuch as labour under *acute* or *critical Diſeaſes*, or their *Effects*, are obviouſly improper Subjects. So likewiſe are thoſe who carry evident Marks of *corroſive*, *acrimonious Humours*, or labour under a manifeſt *Debility of the whole Frame*; all theſe ſhould be treated in a proper Manner, previous to Inoculation. He has known, however, Inſtances of *ſevere Ague Fits*, between the Inſertion of the *Matter* and the Eruption of the Pock; and even during the Maturation; when he gave the *Peruvian Bark* liberally and with Succeſs; the principal Buſineſs, in the mean Time, ſuffering no Interruption.

Inoculated Perſons have generally had more Puſtules in *Spring*, than in any other Seaſon; but Epidemics prevailing moſtly in *Autumn*, eſpecially *Fluxes*, *Intermittents*, and *ulcerated ſore Throats*, (all which are liable to mix, more or leſs, with the Small-Pox,) he thinks *Autumn* the moſt unfavourable Seaſon to Inoculation. Yet he thinks, that conſidering the ſurprizing and indiſputable Benefits, in all Caſes of the Small-Pox, from the free Admiſſion of *freſh cool Air*, and *Evacuations*, we may ſafely inoculate in *all Seaſons*, ſkreening the Patients from too

much Heat in Summer, and not ſuffering them to be too much ſhut up and loaded with Bed-cloaths in Winter.

If any *epidemic Diſeaſe* prevails, it is moſt prudent to defer inoculating till it is over, or abated.

In directing the preparatory Regimen, he principally aims at theſe Points: To reduce the Patient, if in high Health, to a low and more ſecure State; to ſtrengthen the Conſtitution, if too low; to correct what appears vitiated, and to clear the Stomach and Bowels, as much as may be, from all Crudities and their Effects. With this View, he orders thoſe who conſtitute the firſt Claſs, by far the moſt numerous, to abſtain from all Animal Food, Butter, Cheeſe, and fermented Liquors, except Small-Beer, but not much of that; from Spices, and whatever has a heating Quality. The Diet, Pudding, Gruel, Sago, Milk, Rice-Milk, Fruit Pyes, Greens, Roots, and all Vegetables in Seaſon, prepared or raw. The Stomach muſt not be over-loaded. Tea, Coffee, or Chocolate for Breakfaſt for thoſe accuſtomed to them.

Thus they ſhould proceed about ten Days before the Operation, during which, at equal Intervals, they are to take three Doſes of the following Powder, made into Pills, with a little Syrup or Jelly, at Bed-time, viz. *Eight Grains of Calomel, the ſame Quantity of Compound Powder of Crabs Claws, and one-eighth of a Grain of Emetic Tartar.* Or, inſtead of the latter, *two Grains of precipitated Sulphur of Antimony*, to be worked off next Morning with *an Ounce of Glauber's Salts*, diſſolved in thin Water-Gruel. This for a healthy ſtrong Man: For Women and Children the Doſe to be leſſened according to the Age and Strength.

Among thoſe deſirous of Inoculation are often found tender, delicate, and weakly Women, Men originally bad Conſtitutions, or reduced by Intemperance, alſo aged Perſons and Children. Theſe require a very different Preparation, rather of the alterant than purgative Kind; and ſometimes an Indulgence in light Animal Food, as Broths, and a Glaſs of Wine or two is allowable, eſpecially to ſupport Strength, in advanced Age.

Inattention to the State of Health has done great Miſchief, particularly in the indiſcrete Uſe of Mercurials, whereby a Salivation has been raiſed.

The Time of Menſtruation has generally been the Guide in reſpect to the Inoculation of Women; that the whole Diſeaſe might be over within the menſtrual Period; though there is no Reaſon to decline the Operation at any Time.

Women

Women with Child have likewiſe been inoculated and done well; yet he has never inoculated any whom he knew to be pregnant.

Various have been the Ways of communicating the Small-Pox by Inoculation in this Country. The two which Dr. *D.* has frequently practiſed; but the following has been ſo invariably ſucceſsful, as to induce him to give it the Preference.

The Patient being in the ſame Houſe, and, if no Objection is made to it, in the ſame Room with one who has the Diſeaſe; a little of the variolous Matter is taken from the Place of Infection, if the Subject is under Inoculation, or a Puſtule, if in the natural Way, on the Point of a Lancet, ſo that both Sides of it are moiſtened. With this an Inciſion is made in that Part of the Arm where Iſſues are generally made, deep enough to paſs through the Scarf Skin, and juſt to touch the Skin itſelf, and in Length as ſhort as poſſible, not more than one-eighth of an Inch. The little Wound being then ſtretched open between the Finger and the Thumb, the Inciſion is moiſtened with the Matter, by gently touching it with the flat Side of the infected Lancet. This Operation is generally performed in both Arms, and ſometimes in two Places in one Arm, near together, to be the more ſecure of the Infection's taking Place. The following Method has alſo been tried by him with the ſame Succeſs, though he has heard it has ſometimes failed with others. A Lancet being moiſtened in the ſame Manner, is gently introduced, in an oblique Manner, between the Scarf and the true Skin, and the Finger of the Operator is applied on the Point, in order to wipe off the Infection from the Lancet when it is withdrawn. In both theſe Ways neither Plaiſter, Bandage, nor Covering is applied, nor in any Reſpect neceſſary. Theſe Methods of producing the Diſeaſe never once failed him.

It is of no Conſequence whether the Matter be taken from the natural or inoculated Small-Pox, or whether the Matter be before or after the Criſis; he generally chooſes to take it during the Fever of Eruption.

If neither an inoculated Patient is at Hand, nor any one in the Neighbourhood has a diſtinct Kind of the natural Diſeaſe, an infected Thread may be inſinuated into a ſuperficial Inciſion in both Arms, provided it has not been a long Time infected.

The Day after the Operation has been performed, little Alteration is diſcoverable. On the ſecond Day, if the Part is viewed with a magnifying Glaſs, there generally appears a Kind of Orange-coloured Stain about the Inciſion, and the ſurrounding Skin ſeems to contract. Then the following may be given going to Bed:

Calomel and compound Powder of Crabs Claws, three Grains of each, Emetic Tartar one-tenth of a Grain.

On the fourth or fifth Day, a Hardneſs is to be felt by the Finger; the Patient feels an Itching on the Part, which looks ſlightly inflamed; and under a Kind of Veſication is ſeen a little clear Fluid; the Part reſembling a ſuperficial Burn. About the ſixth, commonly ſome Pain and Stiffneſs is felt in the Arm-Pit, foretelling the near Approach of the eruptive Symptoms, and is a Sign of a favourable Progreſs. Sometimes on the ſeventh, oftener on the eighth Day, the Eruptive Fever is announced by ſlight remitting Pains in the Head and Back, ſucceeded by tranſient Shiverings and alternate Heats, which continue, more or leſs, till the Eruption is perfected. At this Time the Patient often complains of a diſagreeable Taſte in the Mouth; the Breath is always fetid; the Inflammation in the Arms now ſpreads faſt; and upon viewing them with a Glaſs, the Inciſions for the moſt Part appear ſurrounded with an infinite Number of ſmall confluent Puſtules, which encreaſe in Size and Extent as the Diſeaſe advances. On the tenth or eleventh Day, a circular or oval Efflorescence is uſually diſcovered round the Inciſions, extending ſometimes Half round the Arm, but more frequently to about the Size of a Shilling; and, being under the Cuticle, is ſmooth to the Touch, and not painful. This accompanies Eruption, and certainly indicates the whole Affair to be over; the Pain and Stiffneſs in the Arm-Pit alſo going off.

The feveriſh Symptoms are generally ſo mild, as ſeldom to require any medicinal Aſſiſtance, except a Repetition of the Medicine directed the ſecond Night after the Operation; and next Morning this laxative Draught,

Infuſ. of Senna two Ounces, Manna Half an Ounce, Tinct. of Jalap two Drams.

To be given as the eruptive Symptoms are perceivable, if they ſeem to indicate any uncommon Degree of Vehemence.

If the deſcribed Appearances are early obſerved, a favourable Event is implied; but ſometimes, although it may be perceived that the Inoculation has ſucceeded, yet it is but barely perceptible; the Colour about the Wound remaining pale, inſtead of red, or inflamed; the Edges of the Inciſion ſpread but little, remaining flat, ſcarcely riſing at all, and are attended neither with Itching nor Uneaſineſs: Nay, ſometimes on the fifth, and even the ſixth Day, the Alteration is ſo little, as to make it doubtful whether the Infection has taken Place. Theſe imply a late, and more untoward Diſeaſe: To prevent which, the

Powder

Powder or Pill is to be taken each Night; which, if failing to operate by Stool, or there being any Diſpoſition to Coſtiveneſs, an Ounce of *Glauber's Salts*, or the mentioned laxative Draught, is to be given in the Morning, once or twice, as the Caſe may require. This forwards the wiſhed for Inflammation.

Being now arrived at the moſt intereſting Period, the Eruption, inſtead of confining the Patient to his Bed or Room, he directs him, as ſoon as the Purging Medicine has operated, to keep Abroad in the open Air, be it ever ſo cold, as much as he can bear, and to drink cold Water if thirſty; always taking Care not to ſtand ſtill, but to walk about moderately, when Abroad. By this Conduct the Spirits are revived; an Inclination for Nouriſhment returns; he reſts well; a gentle Sweat ſucceeds, accompanied with a favourable Sort; and the Fever ſeems wholly to be extinguiſhed. He eats and ſleeps well all the Time, and by and by there is more Difficulty in reſtraining him within due Bounds, and preventing him in mixing with the Public, and ſpreading the Infection, than there was at firſt to prevail on him to go Abroad.

During this Time, Medicine is ſeldom wanted; the cool Air ſeems the beſt Cordial: If any uncommon Languor happens, a Baſon of ſmall Broth, or a Glaſs of Wine, is allowed in the Day, or ſome White-Wine Whey at Bed-time.

With theſe Exceptions, he has ſo far kept them very ſcrupulouſly to the Diet at firſt directed. But after the Eruption is completed, if Occaſion requires, they are indulged with well boiled light Fleſh, as Chicken, Veal, or Mutton.

The above Regimen almoſt univerſally prevents either alarming Symptoms, or a large Crop of Puſtules; ſometimes, indeed, they have been ſo many, though diſtinct, that he has neither adviſed nor allowed them to go out of the Houſe. But the Generality, when the Eruptions are few, amuſe themſelves Abroad, within proper Limits, with the Puſtules out upon them. Indeed, he neither enjoins this, nor maintains that it is neceſſary; but has not been able to obſerve, that any Inconvenience has ariſen from it.

Thoſe who have the Diſeaſe in the ſlighteſt Manner, without any Appearance of Eruption, but on the inoculated Part, are ſoon permitted to go about their uſual Affairs; and many Inſtances have happened of very induſtrious poor Men, who have inſtantly returned to their daily Labour, with a Caution not to intermix with thoſe who have not had the Diſtemper, and with Directions to take two or three Times of the Purge already directed, or as many Doſes of *Glauber's Salts*. Thoſe who have it in a greater Degree are confined ſomewhat longer; and a

very

very mild Laxative is now and then exhibited, if there is the leaſt Diſpoſition to Coſtiveneſs.

When the Maturation is completed, and it is evident there is nothing farther to fear from the Diſtemper, he allows his Patients gradually to change their Courſe of Diet; recommending to them all to return to their ordinary animal Diet with much Caution and Reſtraint upon their Appetites, both in Reſpect to Food and fermented Liquors.

There are ſome, but not many Caſes, wherein the Inciſions continue for ſome Time to diſcharge a purulent Matter: In theſe Inſtances it is ſufficient to cover the Place with the *White Cerate*, or any other mild emplaſtic Subſtance, which may at once prevent the Linen from adhering to the Sore, and defend it from the Air; giving, beſides, ſuch gentle Purgatives, and proper Alteratives, as particular Exigencies may require.

Hitherto has been deſcribed the uſual Progreſs of the Small-Pox from the Inoculation. There are, however, Deviations from this Courſe, and indeed not a few; ſome of the moſt material of which, as they embarraſs the inexperienced, and create a real Difficulty, as well as Apprehenſions of Danger; it ſeems neceſſary to deſcribe the Means that Experience has ſuggeſted to remove theſe Symptoms, or the Doubts reſpecting the Event.

1. Great Sickneſs, though it very rarely happens, ſometimes gives great Trouble, coming on accompanied with Vomiting during the Eruptive State. For this, it is always neceſſary firſt to clear the Stomach, by drinking plentifully of warm Liquids to promote the Vomiting: or perhaps more properly, by giving one Grain of *Emetic Tartar* to an Adult, mixed with ten Grains of *Compound Powder of Crabs Claws*, leſſening the Doſe for very young and weak Subjects. If no Stools ſhould follow, and the Sickneſs ſhould remain, a gentle Laxative almoſt certainly procures a Reſpite, and the Appearance of the Eruption removes the Complaint entirely.

2. A Deviation, of ſtill more Conſequence, often, though not always accompanied with great Sickneſs, is an eryſipelatous Efflorescence. This, if it ſhews itſelf on the Skin partially, and here and there in Patches, is not very alarming, and ſoon wears off. But ſometimes the whole Surface of the Skin is covered with a Raſh, intimately mixed with the variolous Eruption, and ſo much reſembling the moſt malignant Kind of the Confluent Small-Pox, as ſcarcely to be diſtinguiſhed from it: And indeed ſome Caſes of this Sort have happened, where being accompanied with *Petechiæ* and livid Spots, he has been much alarmed; not being able to diſtinguiſh, though aſſiſted by Glaſſes,

Glaſſes, whether what he ſaw was an inoffenſive Raſh, or Tokens of the greateſt Malignity. Very ſtrict Attention, however, enabled him to determine the Difference clearly.

The real and eſſential Difference then is to be gathered from the concomitant Symptoms. In the eryſipelatous or variolous Raſh, there is not ſo much Fever, nor is the Reſtleſſneſs, or Pain of the Head or Loins ſo conſiderable; neither is there that general Proſtration of Strength, which is almoſt a never-failing Attendant on a confluent Small-Pox, eſpecially when accompanied with ſuch putrid Appearances. Beſides, upon a careful Examination, there may ſometimes be diſcerned a few diſtinct Puſtules, larger than the reſt, mixed with the Raſh, which are indeed the real Small-Pox. In theſe Caſes the Patients are ordered to refrain from cold Water, or any thing cold, and to keep within Doors, but not go to Bed. If any Sickneſs yet remains, a little White-Wine Whey, or other moderate Cordial, is adviſed: And this Method has been ſo ſucceſsful, as to prevent any alarming Complaint. After two or three Days the Skin, from a florid, changes to a duſky Colour, a few diſtinct Puſtules remain, and advance properly to Maturation, without any further Trouble.

It ſhould alſo be obſerved, that Raſhes of this Kind frequently happen during the Preparation, (whether owing to the Regimen, or Medicine, or both,) and cauſe the Operation to be poſtponed: but in ſuch Caſes they are apt to return at the Time of the Eruption of the Small-Pox.

In general, as has been ſaid, the Symptoms preceding the Eruption commence at the End of the ſeventh, or on the eighth Day, incluſive from the Operation: but it often happens, that they appear much ſooner, and ſometimes much later. Inſtances have been, wherein the Diſeaſe has enſued ſo ſuddenly after Infection, and with ſo little Complaint or Uneaſineſs, that the whole Affair has been terminated, Purges taken, and the Patient returned Home, perfectly well, in a Week's Time; before others, inoculated at the ſame Time, from the ſame Patient's Matter, and under the ſame Circumſtances, have begun to complain. In this Caſe, the inoculated Parts ſhew early certain Marks of Infection; ſometimes on the very next Day, or the Day after, when the Inciſion will often appear conſiderably inflamed and elevated. The Patient, about this Time, frequently makes ſome of the following Complaints, viz. Chilline ſs, Itchings, and ſmall pricking Pains in the Part, and ſometimes on the Shoulder, Giddineſs, Drowſineſs, and a ſlight Head-ach, ſometimes attended with a feveriſh Heat, but often without any: The Account they themſelves give of their Feelings is, in ſome,

as

as if they had drank too much, and in others, as if they had caught a Cold. Theſe Complaints ſeldom laſt twenty-four Hours, often not ſo long, and with frequent Remiſſions, and never riſe to a Degree that requires Confinement. The Inflammation upon the Arm at the Time of the Complaints advances apace, and feels hard to the Touch; but upon their wearing off, the inflamed Appearances gradually leſſen, and the Part dries to a common ſmall Scab; the Skin, that was before red, turns livid, and the Party is quite well. In ſome Inſtances theſe Symptoms attack much later; even on the ſeventh or eighth Day, when an Eruption might be expected in Conſequence of them, yet none appears; but the Arm gets well very ſoon, and the Diſeaſe is at an End.

In this irregular Sort of the Diſorder there have been, however, ſome Examples, where a few Eruptions have appeared, and probably in Conſequence of the Inoculation; yet the Puſtules have not looked like the true Pocks, nor maturated like them, nor laſted longer than three Days; about which Time they, for the moſt Part, have dried away.

Dr. *D.* finding it difficult to deſcribe the Variety and Irregularity of Symptoms that occur in this ſhort Way of having the Diſtemper, delineates ſome Caſes, by Way of illuſtrating the Matter more to the Reader's Satisfaction.

When Subjects of this Sort firſt occurred to his Practice, he doubted whether they were quite ſecure from any future Attacks; and in order to try this Matter, he inoculated them a ſecond Time, and made them aſſociate with Perſons in every Stage of the Diſeaſe, and try all other Means of getting infected, yet without a ſingle Inſtance of producing the Diſorder: So that he now makes no Scruple of pronouncing them perfectly ſafe.

Another Irregularity deſerving Notice is, that ſometimes, upon the Abatement of the Fever, and other Symptoms, after the Appearance of ſeveral Puſtules, and when the eruptive State of the Diſeaſe ſeems perfectly completed, it nevertheleſs happens that freſh Eruptions come out, and continually do ſo daily, for four, five, or even ſix Days ſucceſſively; preceded ſometimes by a ſlight Pain in the Head, though more frequently they appear without any new Diſturbance. Theſe are generally few in Number, ſhort-lived, and ſeldom come to Maturity. But he has ſeen four Caſes, in each of which, after a Ceſſation of Complaints, and an Appearance of a few Puſtules, the eruptive Stage was thought to be over, yet in two or three Days a freſh Fit of Fever has come on, and, after a ſhort Illneſs, a Quantity of new Puſtules has broke

broke out, far exceeding the firſt Number, and theſe remained, and matured completely.

Some of his own Patients, and, as he has been credibly informed, of others, have had conſiderable Eruptions after they returned home; which have probably given Occaſion for the Reports of ſeveral having had the Diſeaſe again in the natural Way, after Inoculation. But that theſe Reports are ill-grounded, will appear from this Obſervation, to wit, that in all the Caſes of this Sort, which have occurred in his own Practice, or, as far as he can learn, in that of others, the ſecond, or latter Crop of Puſtules, has always happened within the Time uſually allowed for the Progreſs of the Small-Pox from Inoculation, and before the Inflammation on the Arm ceaſed, and ſooner than they could be ſuppoſed to be produced by Infection taken in the natural Way: And whenever it has happened, it has been to Perſons in whom, after a ſlight Eruption, and Abatement of Symptoms, the Diſeaſe has prematurely been judged to be quite over.

It will doubtleſs be aſked, how Caſes of this Kind ſhould ever happen among thoſe who return home as cured? To which he anſwers, That it is no unuſual thing for induſtrious Men, after a ſlight Eruption, and Ceſſation of all Complaints, to aſk Leave to return home to their Occupations and Families; and where it has been thought that no Danger would accrue to others, their Requeſt has been often granted: for the Phyſician no more than the Patient can foreſee when theſe Accidents ſhall follow; but it may be obſerved here, that in all theſe Caſes of his own Knowledge, very repellent Medicines being uſed in the Beginning, and a more generous Diet, or greater Exerciſe afterwards, ſeem to have contributed to this ſecondary Eruption.

Dr. *D.* comes next to conſider the Conſequences that follow this very cooling and repelling Method, and how far the Patient's future State of Health may be affected by a Practice ſo new and oppoſite to eſtabliſhed Theory. He needs not, he thinks, ſay how much it has been thought right, in moſt or all eruptive Complaints, eſpecially in the Small-Pox, to forward, by every gentle Means, the Efforts of Nature in producing an Eruption: And, on the contrary, how dangerous to check it, either by cold Air, cold Drink, or any conſiderable Evacuations; or that the Uſe of warm Diluents, therefore, and the lying in Bed, eſpecially if the Fever and Symptoms run high, or at leaſt confining them to the Houſe, have been generally approved and recommended for the Purpoſe. But when a Practice ſo foreign to this, and almoſt totally

totally different, is inculcated, it is no Wonder if Mens Minds are alarmed, and thoſe Evils expected that were ſuppoſed to be the unavoidable Conſequences of it.

Experience, however, and Inſtances of ſo many Thouſands ſucceeding by this Method, without any conſiderable bad Effects from it, either immediate or remote, are irreſiſtible Arguments for its Support and Juſtification, and the beſt Proof of its Utility and Safety: he ſays, *without any conſiderable bad Effects*, as, in reality, he never ſaw any that deſerved that Name, if compared with what ſometimes follow the natural Small-Pox, or frequently happen after the old Method of Inoculation.

Every one who has any Share in this Practice, according to the common or old Methods, will allow, that after paſſing through the Diſeaſe in a very favourable Manner, Patients (Children eſpecially) were frequently liable to Abſceſſes in the Arm-pits, and other Parts, tedious Ophthalmies, and troubleſome Ulcerations in the Place of Inſertion; which, though not to be foreſeen or prevented, yet frequently give more Pain and Vexation to the Patients, and Trouble to the Operator, than the Diſeaſe itſelf had done: Whereas, he can aver, that of thoſe treated in the cool Way, or this new Method, but one among more than Fifteen Hundred had ſo much as a Boil in the Axilla, and that was a Child who had an Iſſue in the ſame Arm, at that Time dried up; and that he has only ſeen ſo very ſmall ſuperficial Boils in others near the Place of Inſertion, ſeeming rather to be occaſioned by an Irritation from the Diſcharge, than from any other Cauſe, and were ſoon healed without any Trouble. In a few Inſtances alſo there has been a Slough in the inciſed Part, forming a Sore of a ſhort Duration; but not one Inſtance of an Ulcer of any Continuance. He has never had an Example of one Ophthalmy from this Practice: in a few, the Coats of the Eye have been a little inflamed, but ſoon became clear, without any Means uſed. So that theſe Complaints, formerly ſo grievous and frequent, are, by the new Method, much reduced.

Diſcoveries in Phyſic, as in other Sciences, are at firſt liable to Cenſure and Oppoſition; and as the preſent Syſtem of Inoculation is of ſo extraordinary a Kind, it would not be ſtrange, if a greater Portion of both, than uſual, ſhould fall to its Share. Accordingly, as no Charge of Fatality or bad Effects after Recovery could be produced, Recourſe has been had to other Meaſures, to calumniate and diſcredit the Practice, too ridiculous to be recited, and deſerving no more than this

this, general Anſwer; that from the ſtricteſt Obſervation and Enquiry Dr. *D.* has been able to make, thoſe inoculated in this Way have continued to enjoy as good a State of Health as their Neighbours; nay, many of them have thought their Conſtitutions better after than before.

Another Charge againſt this Method is, that ſome have had the Diſtemper afterwards in the natural Way. What he has ſaid about Anomalies in the Small-Pox, will, he believes, ſufficiently account for the Appearances which have occaſioned thoſe falſe Reports; and if that does not ſatisfy, he can only add this poſitive Declaration, that nothing of the Kind has ever happened to any Patient by him inoculated; and he does firmly believe, no one ever had, or can have, the Diſtemper a ſecond Time, either in the natural Way, or from Inoculation.

He comes next to the Effects of this Treatment, applied to the natural Small-Pox. The very great Relief Perſons under Inoculation experience from freſh Air, cold Water, and Evacuations by Stool, determined him, he ſays, to make Trial how far the like Treatment might be uſeful, to thoſe ſeized with the natural Small-Pox; more eſpecially in ſuch Caſes, where, from the Violence of the Symptoms, a confluent Kind was juſtly to be apprehended.

If the Attack of the cold Fit be pretty ſevere, and the ſubſequent Fever unuſually high; if a Nauſea and Vomiting ſucceed, together with great Pains in the Head, Back, and Loins, eſpecially the laſt; if a Delirium, great Reſtleſſneſs, diſagreeable Taſte in the Mouth, and a peculiar Smell in the Breath, or even if ſeveral of thoſe Symptoms are obſerved, the Small-Pox may reaſonably be expected; and if, upon Inquiry, which ſhould always be made, it appears, that the Patient has been in the Way of Infection, there will be little Reaſon to doubt it.

It may be objected, that, notwithſtanding the cloſeſt Attention and Inquiry, Symptoms of the like Kind may precede Fevers of other Kinds. To which he anſwers, that ſome ſuch Caſes, though few, have happened; and the Treatment he is about to recommend has been practiſed not only without Prejudice to the Patient, but manifeſtly to his Benefit.

But waving, for the preſent, all Conſiderations reſpecting the Treatment of Fevers in general, he only relates what has occurred to him in Reſpect to the Natural Small-Pox.

In ſeveral Inſtances, where the Symptoms and other concurring Circumſtances induced him to think the Small-Pox was at hand, he has directed the like Management as he recommends to inoculated Patients. He has been called alſo to others at the Time of Eruption, where ſome Puſtules having already appeared,

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made the Matter clear: and in every Caſe of this Kind he has endeavoured to get the ſick Perſon into the open Air, has generally given the mercurial and antimonial Pill, and directed a Laxative to be taken ſome Hours after it, to procure three or four Stools; which Method he has more particularly enjoined to be repeated where the Kind has appeared to be bad, and little or no Relief found from the partial Eruption, and the Symptoms continuing to portend great Danger. The ſame Method he has followed during the whole eruptive Fever, intending thereby to abate its Violence, to check the Eruption, and prevent the Conflux and the Danger. The Succeſs of this Practice has hitherto exceeded his Expectations. Among thoſe who have been thus treated by himſelf not one has died, though the Number be about Forty.

The open Air immediately abates the Heat over the whole Surface of the Skin, which, though before intenſely hot, ſoon feels not much warmer than that of one in Health. The Pulſe, from ſtrong, full, and quick, becomes leſs hard and full, but continues quick, and ſometimes intermits; which, however alarming it may ſeem, is no dangerous Symptom. The Pain in the Head is always relieved, but that in the Back and Loins does not abate in Proportion; and though it coſts no little Pain and Trouble to perſiſt in moving Abroad under ſuch Circumſtances, attended, for the moſt Part, with great Laſſitude; yet the Patients are ſenſible of the Benefits they receive; and entertaining a good Opinion of the Practice, commonly behave with great Reſolution, and, in general, think themſelves ſtronger.

The Effects of the Medicines are uſually theſe. If there has been much Sickneſs at Stomach, Vomiting frequently ſucceeds the Uſe of the Pill; when the Patient ſhould drink plentifully of warm Diluents, and not go Abroad till the Fatigue is over. This, and the ſucceeding Stools abate, for the moſt Part, the feveriſh internal Heat, Thirſt, Sickneſs, and Pains. They complain then of being low and faint, but a Diſpoſition to receive Nouriſhment hourly increaſes; and they drink Mutton or Chicken Broth, Milk Pottage, or Tea. Sleep likewiſe now comes on ſpontaneouſly; but he forbids it till Bed-time at Night.

Hence it appears, that the Fever preceding Eruption, and its worſt concomitant Symptoms, are often greatly mitigated by this Practice; and it may be added, that the Eruption is moſt certainly retarded; that is, it does not appear ſo ſoon after the Attack, nor comes out ſo precipitately, when it has begun to appear, as it ſeemed likely to have done if the natural

tural Progreſs had not been interrupted; an Effect which, however dangerous it may have been thought, clearly ſhews the Utility of the Practice; ſince Experience manifeſts, that the later the Eruption ſhews itſelf after the Beginning of the Diſeaſe, and the ſlower it comes out, the more mild and favourable is the Event.

Hitherto of the Diſeaſe only in its eruptive State: After which, unleſs ſome preſſing Symptoms call for immediate Relief, it is the general Practice to wait till Maturation comes on.

In this neglected Interval to the Acceſſion of the Fever of Maturation, he ventures in general to recommend the ſame mercurial antimonial Medicine as he preſcribed in the eruptive Fever, to be repeated at proper Intervals, till the Maturation advances, when it muſt certainly be diſcontinued: Theſe Circumſtances can be regulated only by thoſe who attend, according to the Urgency of the Symptoms, and the Strength of the Patients: A Cup-full of the following Apozem ſhould, if neceſſary, be now and then taken after the mercurial Medicine, often enough to produce three or four Stools a Day, eſpecially if the Patient be coſtive.

℞. *Cremor. Tart.* ʒij. *Mann.* ʒj. *diſſolv. in Decoct. Hord. vel Pectoral.* ℔ ij.

How far it may be ſafe or adviſeable for the Patients to venture into the open Air during the Stage of this Diſeaſe, he pretends not to ſay; but that they will be certainly both refreſhed and invigorated, by being kept out of Bed as much as they can bear, without being over-fatigued; and by freſh Air let in ſometimes through an open Window.

As the Violence of the eruptive Fever, and its attendant Complaint, muſt exhauſt the Strength and Spirits, they ſhould in this Interval be recruited by moderate Quantities of the above-mentioned proper Nouriſhment, and, if Occaſion requires, with cordial and anodyne Medicines, to be the better able to encounter and bear the Pain and Fever, which will moſt certainly happen as Maturation advances.

For the beſt Method of treating the Small-Pox in the State of Maturation, he refers to the eminent and learned Practitioners who have profeſſedly written about it, only taking Liberty to recommend one Medicine he has found to abate Heat and Thirſt, and afford a pleaſing Refreſhment.

℞. *Spir. Vitriol. ten.* ʒj. *Spir. Vitriol. dulc.* ʒij. *miſce. Hujus* ʒſs. *commiſceatur cum Decoct. Hord. vel Decoct. Pectoral.* ℔ ij. *vel* ℔ iij. *de quo bibat Æger ad libitum.*

He thinks it neceſſary to declare, that nothing which he has ſaid is meant to relate to Practice in the *Bleeding* or *Purple* Small-Pox; though cold repellent Medicines may perhaps deſerve to be tried in theſe hitherto fatal Caſes, provided it can be done early; but the mercurial evacuating Courſe ſeems quite improper.

Of the Chicken, *or* Swine-Pox.

DR. W. Heberden believes the *Chicken-Pox* and *Swine-Pox* to differ only in Name; they occaſion ſo little Danger or Trouble to the Patients, that Phyſicians are ſeldom ſent for to them, and have therefore very few Opportunities of ſeeing this Diſtemper. Hence it happens that the Name of it is met with in very few Books, and hardly any pretend to ſay a Word of its Hiſtory.

But though it be ſo inſignificant an Illneſs, that an Acquaintance with it is not of much Uſe for its own Sake, yet it is of Importance on account of the Small-Pox, with which it may otherwiſe be confounded, and ſo deceive the Perſons, who have had it, into a falſe Security, which may prevent them either from keeping out of the Way of the Small-Pox, or from being inoculated.

Theſe Pocks break out in many without any Illneſs or previous Sign: In others they are preceded by a little Degree of Chillneſs, Laſſitude, Cough, broken Sleep, wandering Pains, Loſs of Appetite, and Feveriſhneſs for three Days.

In ſome Patients he has obſerved them to make their firſt Appearance on the Back, but this perhaps is not conſtant. Moſt of them are of the common Size of the Small-Pox, but ſome are leſs. He never ſaw them confluent, nor very numerous. The greateſt Number which he ever obſerved, was about twelve in the Face, and two hundred over the reſt of the Body.

On the firſt Day of the Eruption they are reddiſh. On the ſecond Day there is at the Top of moſt of them a very ſmall Bladder, about the Size of a Millet Seed. This is ſometimes full of a watery and colourleſs, ſometimes of a yellowiſh Liquor, contained between the Cuticle and Skin. On the ſecond, or, at the fartheſt, on the third Day from the Beginning of the Eruption, as many of theſe Pocks, as are not broken, ſeem arrived at their full Maturity; and

thoſe which are fulleſt of that yellow Liquor, very much reſemble what the genuine Small-Pox are on the fifth or ſixth Day, eſpecially where there happens to be a larger Space than ordinary occupied by the extravaſated Serum. It happens to moſt of them, either on the firſt Day, that this little Bladder ariſes, or on the Day after, that its tender Cuticle is burſt by the accidental rubbing of the Cloaths, or by the Patient's Hands to allay the Itching, which attends this Eruption. A thin Scab is then formed at the Top of the Pock, and the Swelling of the other Part abates, without its ever being turned into Pus, as it is in the Small-Pox. Some few eſcape being burſt, and the little Drop of Liquor contained in the Veſicle at the Top of them, grows yellow and thick, and dries into a Scab. On the fifth Day of the Eruption they are almoſt all dried and covered with a ſlight Cruſt. The Inflammation of theſe Pocks is very ſmall, and the Contents of them do not ſeem to be owing to Suppuration, as in the Small-Pox, but rather to what is extravaſated immediately under the Cuticle by the ſerous Veſſels of the Skin, as in a common Bliſter. No Wonder, therefore, that this Liquor appears ſo ſoon as on the ſecond Day, and that upon the Cuticle being broken it is preſently ſucceeded by a ſlight Scab: Hence, too, as the true Skin is ſo little affected, no Mark or Scar is likely to be left, unleſs in one or two Pocks, where, either by being accidentally much fretted, or by ſome extraordinary Sharpneſs of the Contents, a little Ulcer is formed in the Skin.

The Patients ſcarce ſuffer any thing throughout the whole Progreſs of this Illneſs, except ſome Languidneſs of Strength, and Spirits, and Appetite, all which is probably owing to the confining of themſelves to their Chamber.

He ſaw two Children ill of the Chicken-Pox, whoſe Mother choſe to be with them, though ſhe had never had this Illneſs. Upon the eighth or ninth Day after the Pocks were at their Height in the Children, the Mother fell ill of this Diſtemper then beginning to ſhew itſelf. In this Inſtance the Infection lay in the Body much about the ſame Time that it is known to do in the Small-Pox.

Remedies are not likely to be much wanted in a Diſeaſe attended with hardly any Inconvenience, and which in ſo ſhort a Time is certainly cured of itſelf.

The principal Marks by which the Chicken-Pox may be diſtinguiſhed from the Small-Pox, are,

1. The Appearance on the ſecond or third Day from the Eruption of that Veſicle full of Serum upon the Top of the Pock.

2. The Cruſt, which covers the Pocks on the fifth Day; at which Time thoſe of the Small-Pox are not at the Height of their Suppuration.

Foreign medical Writers hardly ever mention the Name of this Diſtemper; and the Writers of our own Country ſcarce mention any thing more of it than its Name. *Morton* ſpeaks of it, as if he ſuppoſed it to be a very mild genuine Small-Pox. But theſe two Diſtempers are ſurely totally different from one another, not only on Account of their different Appearances abovementioned, but becauſe thoſe, who have had the Small-Pox, are capable of being infected with the Chicken-Pox; but thoſe who have once had the Chicken-Pox are not capable of having it again, though to ſuch, as have never had this Diſtemper, it ſeems as infectious as the Small-Pox. He wetted a Thread in the moſt concocted pus-like Liquor of the Chicken-Pox which he could find, and after making a ſlight Inciſion, it was confined upon the Arm of one who had formerly had it; the little Wound healed up immediately, and ſhewed no Signs of any Infection.

From the great Similitude between the two Diſtempers, it is probable, that, inſtead of the Small-Pox, ſome Perſons have been inoculated from the Chicken-Pox, and that the Diſtemper which has ſucceeded has been miſtaken for the Small-Pox by haſty or unexperienced Obſervers.

There is ſometimes ſeen an Eruption, concerning which he has been in Doubt, whether it be one of the many unnoticed cutaneous Diſeaſes, or only, as he is rather inclined to believe, a more malignant Sort of Chicken-Pox.

This Diſorder is preceded for three or four Days by all the Symptoms which forerun the Chicken-Pox, but in a much higher Degree. On the fourth or fifth Day the Eruption appears, with very little Abatement of the Fever; the Pains likewiſe of the Limbs and Back ſtill continue, to which are joined Pains of the Gums. The Pocks are redder than the Chicken-Pocks, and ſpread wider, and hardly riſe ſo high, at leaſt not in Proportion to their Size. Inſtead of one little Head or Veſicle of a ſerous Matter, theſe have from four to ten or twelve. They go off juſt like the Chicken-Pox, and are diſtinguiſhable from the Small-Pox by the ſame Marks; beſides which the Continuance of the Pains and Fever after the Eruption, and the Degree of both theſe, though there be not above twenty Pocks, are, as far as he has ſeen, what never happen in the Small-Pox.

Many Foreigners ſeem ſo little to have attended to the peculiar Characteriſtics of the Small-Pox, particularly the Length of Time which it requires to its full Maturation, that we may

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the leſs wonder at the prevailing Opinion among them, that the ſame Perſon is liable to have it ſeveral Times. *Petrus Borellus (Hiſt. & Obſ. Rar. Med. Phyſ. Centur.* iii. *Obſ.* 10.) records the Caſe of a Woman, who had this Diſtemper ſeven Times, and catching it again died of it the eighth Time. It would be no extravagant Aſſertion to ſay, that here in *England* not above one among Ten Thouſand Patients is pretended to have had it twice; and wherever it is pretended, it will always be as likely that the Perſons about the Patient were miſtaken, and ſuppoſed that to be the Small-Pox, which was an Eruption of a different Nature, as that there was ſuch an extraordinary Exception to what we are ſure is ſo general a Law.

Of the Erysipelas, *or* St. Anthony's Fire.

An Erysipelas is an *eruptive* Fever, from which no Part of the Body is exempt; but it chiefly attacks the Face. It begins with Chillneſs and Shivering, and other common Symptoms of a Fever. The Part affected ſwells a little, with great Pain, and intenſe Redneſs, and is beſet with a vaſt Number of little Puſtules; which, when the Inflammation is increaſed, are converted into *ſmall Bliſters.* Sydenham.

This Diſeaſe has great Affinity with a *peſtilential Fever*; for it begins ſuddenly with *great Shaking*, Heat, Loſs of Strength, violent Pain in the Back and Head; to which may be added Vomiting, and a *Deliriuin*; (but this is to be underſtood of the worſt Sort.) On the *third* or *fourth Day* the malignant Matter is thrown out on the Surface of the Body, and then the Symptoms a little abate. There is often a Pain, Redneſs, and Tumour in the *inguinal Glands*, from whence the Matter of a *hot fiery Quality* deſcends to the Feet. If the Head is attacked, the *parotid Glands* are affected; if the Breaſts, the *axillary*. The *mammary* and *axillary Glands* are not ſeldom ulcerated, and affect the Joints with a virulent Corruption. And likewiſe, as in the Plague, there is nothing more dangerous than the Return of the *expelled Matter* back from the Surface of the Body to the inward Parts.

In ſome, eſpecially young Perſons, the Matter is not ſo virulent, nor the Fever ſo great; the Glands remain unaffected, and the Eruption happens on the *ſecond Day*. This is not at all dangerous.

An *Eryſipelas* is either *true* or *ſimple*, or *ſpurious*, which is likewiſe called *ſcorbutic*. The *ſimple* only affects the Surface of the Skin, and readily yields to proper Remedies. But the *ſpurious* is more chronic, is harder to cure, and often degenerates into malignant Ulcers. Beſides, this Diſeaſe is ſometimes *idiopathic*, or a primary Diſeaſe; and ſometimes *ſymptomatic*, or a ſecondary one. For inſtance, in the *Anaſarca*, the *Aſcites*, the yellow and black Jaundice, a *ſymptomatic Eryſipelas* ſometimes ſupervenes, and quickly kills the Patient. It is ſometimes complicated with Wounds of the nervous Parts, particularly the Skull and its Membranes; as alſo with Fractures of the Bones, and then it is dangerous.

If it ſeizes the Foot, the Parts contiguous will ſhine; if it is attended with great Pain, it will aſcend to the Legs, and will not bear to be touched.

If it attacks the Face, it ſwells and looks red, and there are Plenty of *watery Veſicles*. The *Eyes* are cloſed up with the Swelling; there is a Difficulty of Breathing; the *Fauces* and *Noſtrils* are very dry, often attended with a Numbneſs and Drowſineſs: Hence an *Inflammation of the Brain* is to be feared, or a *mortal Lethargy*.

If it affects the Breaſts, they ſwell, and grow almoſt as hard as a Stone, with exquiſite Pain, and they are very apt to ſuppurate. There is a moſt violent Pain in the *axillary Glands*, in which an *Abſceſs* is often formed.

In Children the *umbilical Region* generally ſuffers, with a fatal Event.

If in *a Day or two* the Tumor ſubſides, the Heat and Pain ceaſe, the *roſy Colour* turns *yellow*, the Cuticle breaks and falls off in Scales, *the Danger is over*. When the *Eryſipelas* is large, deep, and falls upon a Part of exquiſite Senſe, the Patient is not very ſafe. But if the *red Colour* changes into *black* and *blue*, it will end in a *Mortification*. If the *Inflammation* cannot be diſcuſſed, it will ſuppurate and bring on *Fiſtulas* and a *Gangrene*. When the Patient is cacochymic, the Legs will ſometimes ſwell three Times as big as the natural Size, and is cured with great Difficulty. Thoſe who die of this Diſeaſe, die of the Fever, which is generally attended with Difficulty of Breathing, ſometimes a *Delirium*, ſometimes with Sleepineſs; and this in ſeven Days Time. HOFFMAN.

Let the Patient's Diet be only *Water-gruel*, or *Barley-broth*, with *roaſted Apples*. If he drinks any Beer, let it be very ſmall; and let him keep out of Bed ſome Hours in a Day.

Take

Take away nine or ten Ounces of Blood, and the next Morning let the Patient take the common purging Potion. SYDENHAM.

It is a conſtant Rule among Practitioners, in all *acute and eruptive Fevers*, to keep the Body in a *gentle Diaphoreſis*. The ſame Method is to be obſerved in this Diſeaſe.

If the Patient is *plethoric*, addicted to ſpirituous Liquors, and more eſpecially if the Diſeaſe attack the Head, *Bleeding* is neceſſary.

It will be ſafeſt to avoid external Applications, unleſs a Powder made of *Elder Flowers* and *Liquorice* ſprinkled on the Part. HOFF. Or *Lime Water*, mixt with a fourth Part of *Spirit of Wine* and *Camphire*, dipping a Linen Cloth in it ſeveral Times doubled, and applying it hot to the Part. HEISTER. Or the following:

1. ℞. *Farin. Fabar. Flor. Sambuc. an. Manip.* j. *Rad. Irid. Flor.* ʒij. *Ceruſs.* ʒiij. *Camphor.* ʒj. *Fiant ſpecies ſacculo immittendæ & applicandæ.* JUNKER.

An Infuſion of *Scordium*, *Elder-Flowers*, and *Fennel-Seed*, drank in the Manner of *Tea*, is uſeful to expel the morbific Matter.

2. ℞. *Rad. Althææ & Lilior. an.* ℥j. *Malv. Sambuc. Verbaſc. flor. Chamæmel. Melilot. ſummitat. Hyperic. & Centaur. minor. an. m. j. Sem. Lin. Fænugræc. an.* ℥iſs. *Coq. q. ſ. Aq. ad* ℔iij. *Coletur liquor & tempore uſus adde ſingulis libris decocti Sp. Vin.* ℥iij.

Let Pieces of Flannel be dipt in this Decoction, then ſqueeze them, and apply them hot to the Part affected. After this Fomentation, uſe the following Mixture:

3. ℞. *Sp. Vini.* ℔ſs. *Theriac. Androm.* ℥ij. *Pulv. Pip. long. & Caryophil. an.* ʒij. *F. Mixtura.*

Let Cap-Paper, wetted with this Mixture, be applied to the Part affected. This *Allen* experienced to be excellent in the Courſe of twenty Years Practice.

If the Diſeaſe does not yield to the *firſt Bleeding*, let it be repeated: If that will not do, let it be reiterated twice more; one Day being interpoſed between.

On the Days free from Bleeding, preſcribe a *Clyſter* of *Milk* and *Syrup of Violets*; as alſo the *cooling Emulſion* and *Julep*. SYDENHAM.

When the Symptoms are moderate, the following Mixture is excellent.

4. ℞. *Rob. Sambuci*, ℥j. *Corn. C. uſti* ʒj. *Aq. Alex. ſimp.* ℥iv. *M. F. Hauſtus.*

In more inflammatory Caſes, add xij Grains of pure *Nitre.* HOFF.

Some think Purges not neceſſary in the Beginning of this *Diſeaſe*; but in an *Eryſipelas* of the Head, when it affects the Brain with a *Coma* and a *Delirium*, either the Caſe is deſperate, or *Cathartics* will ſucceed. However, firſt apply *Bliſters* to the Neck, then,

5. ℞. *Tinctur. Sacr.* ℥ij, *Syr. de Rhamno Cathartic.* ℥j *M.*

If this proves too weak,

6. ℞. *Pil. ex Colocynth. ſimp. gr.* xv. *in Aq. Alex. ſ. ſolut. Syr. de Rhamno cathartic.* ℥ſs. *M.* FRIEND.

If, after all, the Tumor remains, and begins to turn livid; if the Pain lies deep and ſeems to reach the *Perioſteum*, and the Part has a Tendency to ulcerate, then it will be proper to promote a Suppuration; at the ſame Time endeavouring to ſtop the Progreſs of the *Putrefaction*. For this Purpoſe the *common Plaiſter* will be proper, with a ſufficient Quantity of *Camphire* and *Saffron*. When there is Matter that lies deep, the Tumour is to be opened with a Lancet, and the Pus is to be got out by Degrees, not all together.

When the *Abſceſs* is in a *glandulous Part*, and has degenerated into a fiſtulous Ulcer, after evacuating the Matter, a balſamic Liquor is to be injected, made of Tincture of *St. John's Wort*, Tincture of *Balſam of Peru*, choice *Myrrh*, and a few Drops of the *Spirit of Turpentine*. [Or the *Traumatic* or *Frier's Balſam.*]

When there is a Mortification coming on, give Things inwardly that reſiſt Putrefaction, as *Nitre* and a little *Camphire*, [or rather the *Peruvian Bark.*] Outwardly apply a Mixture of Lime Water, camphorated Spirit of Wine and Vinegar with Litharge. As alſo Tincture of Myrrh, [or of *Myrrh* and *Aloes*,] made pretty hot, with a Linen Cloth doubled, and often repeated.

In the *Scorbutic Eryſipelas*, which continues for ſome time, it will be proper to give gentle Laxatives and Purifiers of the Blood, with Diaphoretics. After the Body has been opened for ſome Days, give *Diuretics* and *Diaphoretics*, alternately, for a conſiderable Time; and for common Drink, order a temperate Decoction of mucilaginous Woods and Roots with Bitters; particularly Succory Roots, Dandelion Roots, and Raiſins. HOFFMAN.

Of

Of the Synochus, *or* Continual Fever *without Remiſſion.*

THIS Fever, by ſome called Synocha, by others a Continual Fever, is an *acute ſanguineous Fever*, becauſe it is raiſed by a Congeſtion of the Blood, chiefly in the nervoſo-membranous Parts; which, unleſs timely diſcuſſed by the Benefit of Nature and Art, produces a *fatal Inflammation.*

It begins in ſome, with a mild Senſe of Cold, and is ſoon attended with very grievous Symptoms, continuing without Remiſſion till the critical Time, with a great and full Pulſe. If the Blood is forced to the *Head*, for it always affects one Part more than another, the Face will ſwell, the Eyes will be red and full of Tears: There is a Pain in the Head with a Pulſation of the temporal Arteries, a Vertigo, a Sleepineſs, Torpor, or a Raving. When the Blood ruſhes impetuouſly into the *Ventricles of the Heart* and *Pulmonary Veſſels*, cauſing a Diſtenſion therein, then the Breathing will be thick and difficult, with a Straitneſs of the Breaſt, as alſo an Anxiety and Palpitation of the Heart, attended with a Loſs of Strength, and a Dejection of the Mind. A *ſlight Inflammation* of the *Oeſophagus*, with a ſpaſtic Stricture of the Glands of the Fauces, will cauſe Thirſt, Dryneſs, and Blackneſs of the Tongue. If the Inflammatory Congeſtion happens in the *Stomach*, it will create a Nauſea, a Reaching to vomit, and ſometimes a Hiccup. If in the *Inteſtines*, there will be Inflations grievouſly exaſperating the Diſeaſe, together with a Coſtiveneſs, or an Ejection of fœtid Excrements. If in the Veſſels proceeding from the *Meſeraic Arteries* and *Vena Portæ*, there will be a fixed Pain at the firſt *Vertebra* of the Loins. If in the Membranes of the *ſpinal Marrow*, the Patient will tumble and toſs, and lie irregularly in Bed, and will have a Torpor and Languor of the Limbs, ſometimes attended with Convulſions.

But all theſe Symptoms never happen to all, nor is their Violence conſtantly alike. Some diſtinguiſh this *Fever* into the *ſimple* and *putrid*. The *firſt* is cauſed by a Congeſtion of good Blood in improper Places. But when it attacks Perſons full of impure Juices, who have been weakened by a preceding Diſeaſe, conſtant Anguiſh of the Mind, exceſſive Coition, or inordinate Living, the Symptoms are much more grievous, with Loſs of Strength, and the Diſeaſe will continue till the fourteenth or the twenty-firſt Day, ſometimes with Eruptions, duſky or black Spots, with immediate Danger.

There

There is likewiſe an *epidemic Synochus*, which makes its Onſet with the ſame Symptoms as the former, chiefly in the Autumn and Winter. If it will be well managed it will turn to a *catarrhal Fever* after the fourth Day; in which the preternatural Heat will laſt all Night till Break of Day, with catarrhal Defluxions from the Head, a Running at the Noſe, and a moiſt or dry cough till it diſappears.

If the Cauſe is not violent, this Diſeaſe will often diſappear merely by the Benefit of Nature, on the fourth, ſeventh, or eleventh Days, with a large Sweat or Bleeding at the Noſe; and, though very ſeldom, by a Flux of the Belly, unleſs it has ſomething of Malignity.

When the Diſeaſe is rightly managed in the Beginning, that is, on the firſt, ſecond, and third Day, with Bleeding and cooling Things, and gentle Diaphoretics, it will end on the fourth. But if the Bleeding is omitted, or is too little, it may continue till the fourteenth or ſeventeenth Day, with the more grievous Symptoms, as alſo a *Delirium*; but it will terminate at laſt by a Sweat or Looſeneſs.

When it proves fatal, the Patient generally dies of a ſphacelous Inflammation of the Brain, or other Parts, as the Stomach or Inteſtines.

The *Intentions of Cure are*, 1. To free the vital Parts from too great a Congeſtion of Blood, which will either diſperſe a ſlight Inflammation, or prevent a great one. 2. To appeaſe the Exæſtuation of the Blood and the ſpaſtic Affection of the Syſtem of the Nerves. 3. To diſcuſs the ſtagnating and corrupted Fluids, and to reſtore a free Circulation of the Blood, chiefly to the Surface of the Body.

To anſwer the *firſt Intention*, the Patient muſt loſe Blood freely. Then the Orgaſm of the Blood muſt be appeaſed with *Diluents*, *Acids*, and *nitrous Compoſitions*. And certainly if any Diſeaſe requires Acids and the Juice of tart Fruits, it is this, ſuch as Tamarinds, and the Juices of Currants, Oranges, and Lemons.

1. ℞. *Aq. Fontan.* ℔ ij. *Aq. Roſar. Sacchar. Alb. Succ. Aurant. an.* ℥ j. *Vel loco hujus, Spir. Vitriol. gut.* xx.

The Jelly of Hartſhorn made pretty thin with the Addition of Orange Juice, Sugar and Roſe Water, will make a proper demulcent and cooling Drink; or Whey turned with Juice of Lemons or Oranges. Acids are alſo very proper in a malignant putrid *Synochus*.

To direct the Motion of the Blood to the Surface of the Body, gentle Diaphoretics will be proper, ſuch as the bezoardic

ardic or abſorbent Powders, ſometimes alone, and ſometimes with Citron Juice. Likewiſe Infuſions of the Leaves of *Veronica*, *Scordium*, or Carduus Benedictus, with Fennel-ſeed, drank in the Manner of Tea, eſpecially to promote Sweating on the fourth Day, when the Diſeaſe is like to terminate with this ſalutary Excretion.

It is obſervable, that no Fever more univerſally requires Bleeding than this, and that freely and ſoon, Conſideration being had to the Strength, Sex, Age, Temperament, Largeneſs of the Pulſe and Blood-Veſſels of the Patient; which muſt be repeated the next Day, unleſs any thing forbids it. When the Face is tumid, the Eyes red, and a few Drops of Blood fall from the Noſe, that Hæmorrhage muſt be promoted by Scarification, or thruſting in a Straw, that a *Delirium* may be prevented or cured. The Opening of the ſublingual Veins is dangerous, becauſe a fatal Hæmorrhage has enſued.

It will be neceſſary, whether this Fever be *ſimple* or *putrid*, to keep the Body open; for which Purpoſe a Clyſter made of Whey, Honey, Oil of Sweet Almonds, with a little Nitre and Salt, will be proper; for by this Means the Stricture of the inteſtinal Fibres will be relaxed, and Flatus's will be diſcharged, which diſtend the Colon. In the Decline of the Diſeaſe, when there are apparent Signs of Coction in the Urine, a Laxative of Manna and Cream of Tartar, or Caſſia and Rhubarb, will be of great Uſe. But ſtrong Purges and Emetics are bad, for theſe produce a fatal Inflammation.

All ſpirituous Liquors, and Drinks actually hot, are bad, as well as a hot Regimen; for they exaſperate the Symptoms. A *conſtant Sleepineſs* may be cured by applying *Vinegar*, *Sal Ammoniac*, and Juniper-Berries, to the Feet. A Coction in the Urine is the moſt certain Sign of Recovery. Miliary Puſtules ſupervening to this Diſeaſe, is a very bad Omen. HOFFMAN.

Of the BILIOUS FEVER.

THE *Bilious* is a Kind of a *burning Fever*. It begins with intenſe Heat, Thirſt, Anguiſh, and Inquietude. There is likewiſe a Vomiting, or a perpetual Reaching to vomit, with frequent bilious Stools, a Coldneſs of the Extremities, internal Heat, and cardialgic Anxiety. This *Fever* is either *acute*, or *very acute*. In this the Symptoms are more violent, the

the bilious Purging upwards and downwards is very plentiful, joined to a *Cardialgia*, with Fainting. It generally kills before the ſeventh Day, with an Inflammation of the Stomach and *Duodenum*; the Signs of which are, a fixed igneous Heat about the *Præcordia*, with a Coldneſs of the Extremities, high Inquietude and Anxiety, a Hiccup, and a plentiful Eructation of Bile and ſalival Liquor, a Jaundice-Colour of the Countenance, and a Hippocratic Face.

Some are *not ſo acute*, but run a greater Length, with now and then a Remiſſion, and perhaps an Intermiſſion, and have an *Exacerbation*, with Vomiting, Anxiety, and Coldneſs, every other Day, or every third Day, and ought to be called *continual Quotidians* or *Tertians*. But theſe Fevers, unleſs they are ſkilfully handled, readily degenerate into *ſlow Fevers*, and bring on obſtinate Diſeaſes of the Stomach, preſſing Pains and Eructations, from a corroſive bilious Juice gnawing the Stomach either ſuperficially or more deep.

It is cauſed by a bilious Fluid ſecreted plentifully in the Liver, and poured out into the Stomach and *Duodenum*, where, by its Acrimony and Corroſiveneſs, it ſtimulates and lancinates the nervous Tunics, corroding and inflaming them; whence the Symptoms proper to this Fever ariſe, ſuch as a burning Heat, a Cardialgic Anxiety, a Nauſea, a Reaching to vomit, and a violent Purging upwards and downwards. HOFFMAN.

Dr. *Pringle* obſerves, that the BILIOUS or REMITTING FEVER of the Camp ſhould be diſtinguiſhed into two Kinds; the one *incident to the Army on dry Ground*, and the other *infeſting it in damp and marſhy Countries*.

The *firſt* of theſe begins with Chillneſs, Laſſitude, Pains of the Head and Bones, and Sickneſs at the Stomach. At Night the Fever runs high, the Heat and Thirſt are great, the Tongue is parched, and the Head achs violently, the Patient can obtain no Reſt, and often becomes delirious. But generally in the Morning an imperfect Sweat brings on a Remiſſion of all the Symptoms. In the Evening the Paroxyſm returns, but without any cold Fits, and is commonly worſe than the former: On the ſecond Morning it remits as before. Theſe Periods go on daily till the Fever changes inſenſibly into a continued or intermitting Shape. Sometimes looſe Stools carry off the Fit and ſupply the Place of Sweats. But though it generally aſſumes the Type of a *Quotidian Fever*, it ſometimes puts on that of a *Tertian*.

The *Remiſſions* uſually appear from the Beginning, eſpecially if the Patient has been plentifully blooded. Sometimes there are none for the firſt two or three Days. *Bleeding at the Noſe*

Noſe frequently happens at the Height of the Paroxyſms, which cauſes a more quick and evident Remiſſion. Vomiting or Purging have the like Effects. But no Evacuation has made a complete Cure, unleſs the *Cholera Morbus* ſupervened.

The *Pulſe* is always *full and quick* during the Paroxyſms; and in the Remiſſions it ſtill indicates ſome Degree of a Fever. The *Blood* is florid, the *Craſſamentum* is firm, in a large Quantity, and ſinks in the *Serum*. Towards the End of the Campaign it acquires an *inflammatory Cruſt*; for by that Time, Stitches, rheumatic Pains, or a Cough from Colds ſupervene to the reſt of the Symptoms.

While the Weather continues warm, the *bilious Symptoms* are moſt frequent; but as the Winter approaches, the *inflammatory* prevail. The *Urine* is high-coloured, and crude, till the Fever is brought to intermit, and what is voided by Vomit or Stool, is generally of a bilious or corrupted Nature.

Coſtiveneſs not only often precedes, but accompanies the Diſeaſe, and then the Belly feels hard. The Patient complains of Wind. *All do not vomit*, but there is a Diſorder at the Stomach, eſpecially during the hot Weather.

Worms of the round Kind are frequently voided by Stool, ſometimes by Vomiting. Thoſe that are troubled with them have more obſtinate Gripings, or Sickneſs at the Stomach. They frequently have Stitches of a flatulent Kind, which are not relieved by Bleeding. *Some grow yellow*, as in the Jaundice; but it is not a mortal Sign.

There were no critical Days, nor any certain Duration of the Fever, which was longer or ſhorter according to the Method of Cure. It commonly changed to an Intermittent, if proper Means were uſed: But if it became Continual, it was always dangerous. It attended every Campaign, but was moſt frequent in the hot Summers of 1743 and 1747.

The Bilious Fevers *of low, marſhy Countries*, in the End of *July* 1748, while the Days were ſultry, but the Nights cool and foggy, ſeized ſeveral Men at once with a *burning Heat* and *violent Head-ach*, preceded in ſome by a ſhort and ſlight Chillineſs. There was an intenſe Thirſt, an Aching of the Bones, a Pain of the Back, great Laſſitude and Inquietude, frequently a *Nauſea*, Sickneſs or Pain about the Pit of the Stomach; ſometimes vomiting a green or yellow Bile of an offenſive Smell. The Pulſe, at firſt, was generally depreſſed, but full after Bleeding. Some had their Heads ſo ſuddenly and violently affected, that they ran about in a wild Manner like mad Men. But the Solution of the Fit by a Sweat diſcovered the true Nature of their *Delirium*.

Two

Two were ſeized at once by the violent Symptoms of an ardent Fever, and tho' they were ſpeedily and plentifully blooded, they were both in a high *Delirium* in an Hour's Time, which continued for ſome Hours, and went off in profuſe Sweats, under which all the other Symptoms either abated or vaniſhed. The next Day, about the ſame Hour, the Paroxyſm returned, and in ſix or ſeven Hours run the ſame Courſe. Some had not the Paroxyſms ſo diſtinct; for the hot Fits were long, and followed by imperfect Sweats, affording little Relief. Sometimes the Fever had daily Intermiſſions, but in general it only remitted, and the Remiſſions were often very imperceptible. A few Returns of theſe Paroxyſms reduced the ſtrongeſt Men ſo low that they were not able to riſe. Some became quite delirious at once, and would have thrown themſelves out of the Windows, or into the Water, if not hindered. This continued ſome Hours, after which the Patient falling into a profound Sleep, awaked quite ſenſible; but with an intolerable Head-ach. The Fever in others appeared in a continued or remitting Form, and had critical Sweats about the ninth Day, after which it became a regular Intermittent. A few had a *Criſis* by Stool or Urine; and there were ſome who were ill about three Weeks, without any ſenſible Intermiſſion; after which the Fever ended with a few quotidian Paroxyſms; theſe had a continual Moiſture over their Bodies. Some had bilious Vomitings at firſt, and ſeveral voided round Worms both Ways. Profuſe Sweats had always a putrid Smell, and the Diſcharge from the Bliſters was intolerably offenſive. A few of thoſe that died had a regular Pulſe even very near their End. All had a cadaverous Smell before they died, and livid Spots immediately after Death. *This Fever was very prone to relapſe.* PRINGLE.

Hoffman, in the Cure of the Bilious Fevers mentioned by him, would have the cauſtic Acrimony of the bilious Juices abated and ſheathed by *abſorbent Powders* and *Nitre*, which ſhould be taken in a ſufficient Quantity of a Liquid, and often repeated. He likewiſe recommends Emulſions of Almonds, of the cold Seeds; Elder-Flower-Water, Roſe-Water, *&c.* As alſo Jellies of Hartſhorn, Milk and Water, Oil of Sweet Almonds, ſweet Whey, Chicken-Broth; becauſe they are very proper to drive away the Inflammation of the nervoſe membranous Parts.

1. ℞. *Ocul. Cancror. Matris Perlar.* [*ſive Teſt. Oſtrear.*] *Corn. Cerv. ſine Igne ppt. Lapid. Talc. calcinat. an.* ʒj. *Nitri.* ℈j. *M. F. Pulvis de quo ſingulis Horis ſumendus* ʒj. *cum Emulſionis Amygdalatæ* ℥ij. *cui* ʒij. *Olei Amygdalarum commixtæ.*

After

After theſe Things, Medicines muſt be given to reſtrain the impetuous, bilious Excretions, and to abate the too quick ſyſtaltic, and periſtaltic Motion of the biliary Ducts, and to prevent the too great Excretion of the Bile.

In the *Cure* of the BILIOUS FEVER *of the Camp*, *Pringle*, *before it becomes continual*, depends on the proper Uſe of Evacuations, the *neutral Salts*, and the *Bark*. BLEEDING is the firſt thing to be done in every Caſe, and is to be repeated once or oftener, according to the Urgency of the Diſtemper. The *vernal* and later *autumnal Remittents* are accompanied with rheumatic, pleuritic Pains, and other Symptoms of high Inflammation, which require more Bleedings than the intermediate Seaſon. To omit this, and give the Bark too ſoon, will bring on an *inflammatory Fever*. A Vein may be opened ſafely, either during the Remiſſion or in the Height of the Paroxyſm; as alſo in the *Marſh Fever*, when it comes almoſt to regular Intermiſſions. *It is not proper to bleed during the Sweat, nor the cold Fit.* But there was no Danger of a Miſtake with regard to the laſt, for there was none.

After Bleeding, *give an Emetic* in the Remiſſion or Intermiſſion of the Fever, and rather ſoon after a Paroxyſm than before one. But *Emetics do harm* when the Stomach is inflamed, or when the Diſeaſe has continued ſome Time, and has aſſumed the Type of a *continual Fever*. However, we may ſafely give one when the Fever intermits, or has conſiderable Remiſſions. *Ipecacuanha* is ſafeſt, but Antimonials moſt efficacious. If the Remiſſions are ſmall, or the Fever great, or there is a Tendency to vomit, the former is beſt. But when the Remiſſions are diſtinct, or the Remiſſion perfect, the latter ſhould be preferred, or it may be joined to the former; that is, *two Grains of Tartar Emetic with a Scruple of the Powder of Ipecacuanha*. Thoſe Vomits are beſt which produce Stools, eſpecially if they procure a plentiful Diſcharge of corrupted Bile upwards or downwards. This has effected a Cure alone.

If the Body continues coſtive, a Laxative will be proper, eſpecially if there is a *Teneſmus*, or Pains in the Bowels. The *ſaline Draught*, with Salt of Wormwood and Lemon-Juice, will bring the Fever ſooner to regular Intermiſſions. Or,

2. ℞. *Sal. Abſinth.* ʒj. *ſolv. in Aq. Fontan.* ʒvij. *& inſtil. Sp. Vitriol. q. ſ. ad Saturat. Add. Aq. Alexiter. Spir. & Syr. è Cort. Aurant. an.* ʒſs. *Cap. Cochl.* vj. *quarta vel ſextâ quaque Hora.*

Whenever the *Sweats* are not profuſe enough in Proportion to the Fits, the Quantity of an Ounce of *Spir. Mindereri* may be

be given, divided into two or three Draughts before they go off. It promotes a plentiful *Diaphoreſis* without Heating.

As theſe Fevers are never without an Inflammation in the Beginning, and then rarely have complete Paroxyſms, the *Bark* is not to be given till the Urine breaks, and there are intire ſhort Intermiſſions; nor yet before Bleeding, as was obſerved above; nor before the firſt Paſſages have been cleanſed; otherwiſe the Fever will return, or a *Tympanites* will be produced.

It is beſt to give the Bark in Subſtance in Rheniſh Wine; or an Ounce of it may be made into an Electuary, with Syrup of Lemons, and a Dram of *Sal Ammoniacum*. If the Patient has not been purged, it will be proper to add as much *Rhubarb* as will keep the Body open for the firſt two or three Days of uſing that Medicine. It is chiefly uſeful when the *bilious Humours abound*, as they moſtly do in *marſhy Countries*. If the *Paroxyſms are quotidian*, and the Intermiſſions ſhort, it may be neceſſary to give the Bark before the Sweating is quite over.

If the Diſeaſe has been neglected in the firſt Stages, or if after the Remiſſions or Intermiſſions it changes to a continual Fever, with a full and hard Pulſe, a Vein muſt be opened. But if there is a Pain in the Head or a Delirium, and the Pulſe ſmall, it will be beſt to apply Leeches to the Temples. But whether the Patient is bled or not, *Bliſters are the beſt Remedy*. If the *Primæ Viæ* are loaded, Clyſters or a Laxative may be proper; but neither Vomits nor Purges; nor are theſe to be repeated without Caution. To theſe Remedies *the ſaline Draught* may be added; or,

3. ℞. *Pulv. Contrayerv. com.* ℈j. *Nitri pur. gr.* x. *Camphor. gr.* ij. *vel* iij. *M. F. Pulvis, ſexta quaque Hora repetend.* Or,

4. ℞. *Aq. Fontan.* ℥iv. *Aq. Alexeter. ſpir. cum Aceto*; *Julep. è Camphor. an.* ℥iſs. *Pulv. è Contrayerv. comp.* ℈iv. *Nitri pur.* ℈ij. *Syr. è Cor. Aurant.* ʒvj. *M. Cap. Cochl.* iij. *vel* iv. *ſexta quaque Hora.*

Sweating is the proper *Criſis*; it is never to be promoted by *Theriaca* or Volatiles; but *when the Pulſe ſinks*, and *Petechiæ*, or other bad Symptoms appear, it will be proper to uſe the *warmer Alexipharmics*, and to treat the Diſeaſe like a *malignant Fever*.

If it changes to the *Bloody-Flux*, it muſt be treated as the *Camp-Dyſentery*. If a *Diarrhœa* comes on, it will be often convenient to reſtrain it gradually, not ſuddenly, by Opiates; and afterwards to promote a *Diaphoreſis*. If the *Pulſe ſinks* with the frequent Stools, *Theriaca* and *Serpentaria* may be given

given, but with a leſs Proportion of the firſt than in *Fuller's Decoction* *.

A *Looſeneſs* is the leaſt favourable *Criſis*; yet if there are Colic Pains, or a Tenſion of the Belly, attended with Dryneſs of the Skin, it will be proper to procure Stools by a Clyſter, or a gentle Laxative, ſuch as the Infuſion of *Rhubarb with Manna*; which is to be repeated as the Patient can bear it.

The CAMP and MARSH FEVERS have the *like Cure*, as well as *Symptoms*. However, when the *Marſh Fever* is of the ardent Kind, it requires large Bleeding; but in general, as the Humours in this have a very putrid Tendency, it will not bear ſo much as that of the Camp. In moſt Caſes it is neceſſary to open a Vein on the firſt Attack, or on the next Day, if there is no Intermiſſion. But *repeated Bleedings*, unleſs the Signs of an Inflammation were evident, will be apt to render the Fever more malignant. Bleeding is not always neceſſary upon a Relapſe, or after the Weather grows cool, when there is no Inflammation or perfect Remiſſion.

In this Diſeaſe an *Emetic* has had more remarkable Effects than in the former, but not with *Ipecacuanha* alone; therefore two Grains of *Emetic Tartar* have generally been added.

The *Bark* muſt be given after the firſt fair Intermiſſion, and muſt be properly repeated to prevent a Relapſe; that is, an Ounce every ten or twelve Days throughout the Autumn. Add to this, an Abſtinence from Fruit, new Small-Beer, and flatulent Aliment, becauſe they tend to relax.

Of the CAUSUS, *or* Burning FEVER.

THE *principal Symptoms* of a *Cauſus* are, a Heat almoſt *burning to the Touch*, moſt remarkable about the vital Parts, but more moderate towards the Extremities, which are even ſometimes cold: The *Breath* is extremely hot; there is a *Dryneſs* of the whole Skin, Noſtrils, Mouth, and Tongue. The *Reſpiration* is thick, difficult, and quick; the *Tongue* is dry, yellow, black, parched, and rough; the Thirſt is unquenchable; there is a *Loathing* of Food, a *Nauſea* and Vomiting; an Anxiety, Inquietude, and great Laſſitude; a little Cough, a ſhrill Voice, a *Delirium*, a Phrenſy, a continual

* *Decoct. Serpent. comp. Phar. Edinb.*

Watching or a *Coma*, Convulſions; and on the odd Days an Exacerbation of the Fever. BOERHAAVE.

In this temperate Climate theſe Sort of Fevers are very rare; thoſe that are more common among us are the *burning ſanguineous*, or the *continual bilious Fevers without Remiſſion*.

This begins without any remarkable Coldneſs or Shivering, with great Heat, Thirſt, Watching, Anxiety, and Inquietude. In ſanguineo-bilious Conſtitutions, and in Bodies full of hot bilious Blood, they terminate on critical Days in Health or Death, being firſt preceded with a Shaking. They terminate in a ſalutary Manner, with a Sweat or a Bleeding at the Noſe.

On the *third* and *fourth* Day it often proves mortal; it ſeldom exceeds the *ſeventh*, if violent.

It is often *terminated by an Hæmorrhage*, which, if ſmall on the *third* and *fourth* Day, is a fatal Sign. It is beſt if it happens on a *critical Day*.

A *Solution* of this Fever on a critical Day, may alſo be by Vomiting, Stool, Sweat, Urine, or ſpitting thick Phlegm. If the Exacerbation of this Diſeaſe happens on the *ſecond* or *fourth* Day, it is a bad Sign; on the *ſixth*, not ſo bad.

The *Urine* black, ſmall in Quantity, and thin, is *fatal*; ſo is *ſpitting* or *piſſing* of Blood. A Difficulty of *ſwallowing* is a bad Sign; but the *worſt of all* is Coldneſs of the extreme Parts. The *Face* red and ſweaty is bad, a *Parotis* not tending to Suppuration is fatal; the Body too looſe is fatal. A *Tremor* turning into a *Delirium* is mortal: It often changes into a *Peripneumony* with a *Delirium*. When this Diſeaſe ſucceeds Gripings of the Bowels, it is worſt of all.

A critical Determination of this Fever is uſually preceded by a *Rigor*, or Shaking.

The CURE of a *burning Fever* is moſt eaſily obtained in a pure, cool Air, frequently renewed: The Patient muſt not be oppreſſed or ſtifled with Bed-Cloaths, but ſhould ſit up often. He ſhould drink plentifully of ſoft, ſub-acid, aqueous and warm Liquors. His *Diet* ſhould be light, made of Pearl-Barley, Oatmeal, and ſub-acid Fruits.

Bleeding is neceſſary at the Beginning, if there is a *Plethora*, or Signs of a particular Inflammation, or the Heat is intolerable, or the Rarefaction too great, or a Revulſion neceſſary, or the Symptoms urgent, in which Circumſtances the Diſorder is hardly to be vanquiſhed by any other Remedies.

Soft, diluting, laxative, antiphlogiſtic, cooling *Clyſters*, are to be repeated as oft as the *Heat*, *Coſtiveneſs*, and *Revulſion* require them.

The

The whole Body is to be moiſtened, by receiving into the Noſtrils the Steams of warm Water, by waſhing the Mouth, Throat, Feet, and Hands with the ſame; by fomenting with warm Spunges the Places where the Veſſels are moſt numerous, and moſt expoſed to the Touch.

The *Medicines* ſhould be aqueous, ſoft, nitrous, gratefully acid, gently laxative, not promoting Sweat and Urine by their Acrimony, but by their Plenty; ſuch as remove the Contraction of the Fibres, reſolve the Thickneſs of the Humours, and dilute, and temperate their Acrimony. BOERHAAVE.

To appeaſe *Thirſt* in this Diſeaſe, and to *moiſten* the Tongue and parched *Fauces*, there is nothing better than ſweet Whey, in a Quart of which Half a Dram of *pure Nitre* has been diſſolved. Small Draughts of this, a little cool, may be drank frequently, which will likewiſe extinguiſh the preternatural Heat. The Mouth and Throat may alſo be waſhed with *Water*, mixt with Syrup of *Mulberries* and *Nitre*.

If there is an *anginous Inflammation*, the following *Linctus* is excellent, if ſwallowed gradually:

℞. *Julep. Roſar.* ℥j. *Nitr. pur. gr.* xv. *Camph. gr.* iij. *in Ol. Amygdal. dulc.* ʒj. *ſolut. M. F. Linctus.*

Purgatives are dangerous before the *Criſis*, but *Clyſters* may be uſed, made of *Milk*, *Honey*, and a little *Nitre*. After the *Criſis*, which is known by the *Sediment* in the *Urine*, Laxatives, made with *Tamarinds*, *Manna*, *Rhubarb*, *Raiſins*, or *Cream of Tartar*, are abſolutely neceſſary.

The Ancients are very profuſe in their Praiſe of *cold Water* in this Diſeaſe; but the Patient muſt drink but *a little at a Time, and often*, and never till ſome Days after the Attack; not at the Time of the Acceſſion or Exacerbation, or where there is a *Rigor* or a ſmall or intermitting Pulſe. Nor muſt it be drank but when the *Plethora is diminiſhed*, when the extreme Parts are hot, and the Pulſe equal, quick, and great.

When there is a ſevere Pain in the Head, with an incipient Delirium, and Drops of Blood fall from the Noſe, apply an Epithem made of Vinegar of Roſes, Roſe-Water, and Spirit of Wine and Camphire, with Nitre, and Oil of *Rhodium*, not only to the Temples, but to the whole Head ſhaved all over. It muſt be a little cooliſh. This is cooling, diſcutient, and reſiſts an Inflammation. The beſt Cure for a Phrenzy is Bleeding at the Noſe; which may be procured by Scarification, or thruſting a Straw up the Noſe. At the ſame Time the Feet muſt be kept warm and well rubbed; (or *Sinapiſms* may be laid thereto.) HOFFMAN.

Of the Burning Bilious Fever, *or* Yellow Fever *of the* Weſt-Indies.

THE *Yellow Fever* begins with a *momentary Chillneſs* and *Shivering*, which is ſoon ſucceeded by a *burning Heat* all over the Body, but felt more intenſely about the *Præcordia*. The *Pulſe* is high, ſtrong, and rapid; the *Eyes* are heavy; with a throbbing Pain in the Head, a violent beating of the *temporal Arteries*, and a thick, laborious Reſpiration: There is a Nauſcouſneſs and Reaching to vomit; and when any thing is thrown up, it is of the *bilious* Kind: Beſides theſe, *great Anxiety*, Pain in the *Back* and *Loins*, and an uneaſy Laſſitude in all the Limbs.

About *twelve Hours* after the Invaſion, the *Tongue* is dry, harſh, rough, and diſcoloured, with inſatiable *Thirſt*, there is a *Soreneſs* all over the Body, great *Reſtleſſneſs* and a *Delirium*.

In the *laſt Stage*, the Patient labours under a great *Coma*, Oppreſſion of the *Præcordia*, heaving of the *Lungs*, and interrupted Reſpiration, Tremblings of the Tendons, Convulſions, and cold clammy Sweats.

It uſually terminates in a *favourable Criſis*, or the *Death* of the Patient, about the *fourth* Day after the Attack.

The *regular Criſis* generally diſcovers itſelf by a *Suffuſion of the Bile* all over the Surface of the Body about the *third* Day. The *Saffron Tincture* is frequently diſcovered in the Eyes twelve Hours after the Invaſion: The ſooner it appears, the more favourable is the *Prognoſtic*.

A *Jamaica* Writer affirms, that if the *Jaundice* comes on too ſoon, it is bad. If with livid Spots, which ſometimes, though rarely appear, it is fatal. If the Skin continues obſtinately dry and rough, the Caſe is dangerous, and the more ſo, the longer it continues; for theſe very ſeldom recover, be the Pulſe ever ſo good. The Pulſe is not to be depended on; for many have a good Pulſe a few Hours before Death. If the Vomitings are inceſſant, grow darker, and the Hiccup comes on, it is generally fatal. If the Face is greatly fluſhed, and the Veſſels of the White of the Eye are turgid with Blood, as in an *Ophthalmia* attended with a Phrenzy, the Patient is likely to die in a very little Time; eſpecially if the Skin is dry.

But if the Head continues clear, the Pulſe becomes ſoft, the Pains, *Nauſea*, and Anguiſh are relieved by *Bleeding*; as alſo if the Humours vomited up are carried downwards by *Laxatives*; if then the Inquietude ceaſes, the Skin grows ſoft and

and moiſt, and the Patient has better Spirits, it is probable he will recover.

Bleeding is the firſt thing to be done, more or leſs, according to the Force of the Diſeaſe, and the Strength of the Patient; and if the *Symptoms* continue in their *full Vigour*, ſhould be repeated *once in ſix or eight Hours*, leſſening the Quantity proportionably each Time.

After the *firſt Bleeding*, give a *Vomit of Ipecacuanha*, quickened with three or four Grains of *Emetic Tartar*, (or rather two Grains,) which will bring up a great Quantity of yellow, porraceous, and ſometimes *blackiſh Bile*, and carry the Humours downwards.

After this the Patient may drink plentifully of *diluting*, *refrigerating*, and *ſubacid Liquors*, made with Oranges, Lemons, Tamarinds, Spirit of Sulphur, Spirit of Vitriol, and ſuch like, in Barley-Water, Spring-Water, or other thin and cooling Vehicles. He may likewiſe be allowed tartiſh juicy Fruits; as *Ananas*, *Granadilloes*, *Barbadoes Cherries*, and *Water Melons*; as alſo *Plantains* and *Bananas*, roaſted for Food; Jelly of *Guavas*, *&c.*

The following are the Forms frequently made uſe of:

1. ℞. *Decoct. Hord.* ℔ ij. *Aq. Alexeter. ſim.* ℔ j. *Syrup. Lim.* ℥ iv. *M. bibat ad libitum.* Or,

2. ℞. *Conſ. Tamarind.* ℥ vj. *Coq. in Aq. Font.* ℔ iv. *Colatur. bibat frequenter.* Or,

3. ℞. *Succ. expreſſ. Melon. aquatic. dict.* ℔ ij. *Decoct. Hord.* ℔ j. *Vin. Rhenan.* ℔ ſs. *Sacchar. alb. q. ſ. ad gratam dulcedinem. Capiat ut prius.* Or,

4. ℞. *Decoct. Hord.* ℔ iij. *inſtillentur Spir. Nitr. gut. q. ſ. in eoſdem uſus.* Or,

5. ℞. *Lact. Nuc. Coc.* ℔ ij. *Sp. Nitr. cum Ol. Vitriol. q. ſ. ad gratam Aciditatem, & Sacch. alb. parum edulcoretur.*

Cooling teſtaceous Powders are likewiſe very beneficial, given in the following Manner:

6. ℞. *Ocul. Cancr. ppt.* ℥ ſs. *Sal. Prunel.* ʒ ij. *divid. in Doſ.* viij. *Capiat unam quarta quaque Hora.* Or,

7. ℞. *Pulv. è Chel. C. ſimpl.* ʒ ſs. *Crem. Tart.* ʒ ij. *divid. & capiat ut prius.* Or,

8. ℞. *Pulv. Teſt. Ovor. calcinat. Coral. rub. ppt. an.* ʒ iij. *Nitr. pur.* ʒ ij. *in eoſdem Uſus.*

Theſe refrigerate the Blood, and promote a Diſcharge by Urine. Towards the Evening it will be neceſſary to inject a

Clyſter, made of the *common Decoction*, with half an Ounce of *Cream* of *Tartar*, an Ounce of *Manna*, or an Ounce of Pulp of *Caſſia* added to it.

When the Operation of the *Clyſter* is over, *Paregorics* will be proper, as thus:

9. ℞. *Aq. Alexeter. ſ.* ℥iij. *Syrup. de Mæcon.* ℥j. *M.* Or,

10. ℞. *Aq. Menth. ſ.* ℥ij. *Aq. Cinnamom. ſ.* ℥j. *Tinctur. Thebaic. gutt.* xxv. *Sacch. Alb. q. ſ. M.* Or,

11. ℞. *Aq. Cinnamom. ſ.* ℥ij. *Aq. Epidem. Syr. de Mæcon. an.* ℥ij. *Tinctur. Thebaic. gutt.* xx. *M.*

The Room ſhould be kept cool, and ſprinkled with Vinegar, Roſe-Water, and cooling Herbs. Freſh Air ſhould be admitted, but not to blow directly on the Patient's Body.

If the Phyſician is not ſent for till the Patient's *Tongue* is furred, and the Mouth incruſted with a *blackiſh Scurf*, with intolerable Thirſt and a *Delirium*, then *Bleeding*, or rather Cupping, with deep Scarifications on the Shoulders, will relieve the Head to a wonder.

Bliſters are alſo of great Efficacy at this Juncture; which, if applied before it be too late, a *Coma*, the *deadly Symptom* of this Diſtemper, very rarely enſues.

Here likewiſe the following *Emulſions* are proper:

12. ℞. *Amygd. dulc. excorticat. Sem. Melon. Papav. alb. an.* ℥ſs. *in Mortar. marmor. cum Decoct. Hord.* ℔ij. *F. Emulſio ſæpius ſumend.* Or,

13. ℞. *Amygd. dulc. Sem.* 4. *Frig. maj. an.* ℥j. *Lact. Nuc. Coc.* ℔ij. *F. Emulſio. Cui add. Syr. è Mæcon.* ℥ij. *Uſus ut prius.*

The Patient's Diet ſhould be nothing but thin *Panada* and *Water-Gruel*, gratefully ſweetened and acidulated.

In this Caſe likewiſe the Quantity of *Sal Prunel*, or Cream of Tartar, ſhould be increaſed in the Doſes of the cooling Powder, equal to the other Half of the Doſe.

Beſides plentiful and frequent Draughts of cooling Liquor, the Patient ſhould be allowed preſerved Tamarinds, Slices of Lemon with a little Sugar; but above all, *Penguins*, which by their Sharpneſs penetrate the thick, tenacious Scurf, whereby the Glands of the Mouth will be unloaded. Opiates muſt alſo be uſed in larger Doſes than in *Europe*, every Night, in a ſmall Draught of any of the cooling Liquors abovementioned.

Cooling and lenient Clyſters muſt alſo be repeated every eight Hours.

14. ℞.

14. ℞. *Aq. Decoct. Hord.* ℥ix. *Nitri pur.* ℥ſs. *Syrup. Roſar. cum Sen.* ℥ij. *F. Enema.* Or,

15. ℞. *Decoct. com. pro Clyſt.* ℥x. *Sal. Tart.* ℥ſs. *Mel. Roſar.* ℥j. *M.*

When the Patient begins to be *comatoſe*, the *third* and *laſt Stage* of the Diſeaſe is advancing; in which are, Difficulty of Breathing, Oppreſſion of the *Præcordia*, convulſive Twitching of the Tendons, Interruption of the Pulſe, and at length its total Ceſſation.

In this Caſe, a complete Set of *Bliſters* muſt be immediately applied, or the old ones renewed; which muſt be laid to the Nape of the Neck, on the Wriſts, Thighs and Legs, and a large one on the Crown of the Head. To the Soles of the Feet may be laid a Cataplaſm of Salt Herrings and Muſtard.

At the ſame Time preſcribe *cordial Medicines*, in which *Camphire* muſt not be omitted; thus,

16. ℞. *Camph. gr.* vj. *Caſtor. gr.* v. *Confect. Alkerm.* ℥ſs. *F. Bolus.* Or,

17. ℞. *Camph. gr.* vj. *Sal. Succin. gr.* viij. *Pulv. Contrayerv. comp. gr.* x. *Syr. è Cort. Citri q. ſ. ut F. Bolus.* Or,

18. ℞. *Camph. gr.* vij. *Rad. Contrayerv.* ℈j. *Sal. Volat. C. C. gr.* viij. *Confect. Alkerm. q. ſ. F. Folus.* Or,

19. ℞. *Camph. Croc. Ang. an. gr.* vj. *Pulv. Contrayerv. comp. gr.* xv. *Confect. Alkerm. q. ſ. F. Bolus.* Or,

20. ℞. *Moſch. gr.* xij. *Confect. Alkerm. q. ſ. M. F. Bolus.*

Any one of theſe is to be repeated as often as Occaſion ſhall require; nor muſt forcible and *ſtimulating Clyſters* be omitted.

21. ℞. *Decoct. commun. pro Clyſt.* ℔ ſs. *Fol. Senn.* ℥ſs. *coq. ad* ℔ ſs. *colatur. adde Tinct. ſacr.* ℥iij. *Ol. Junip. Chym. gutt.* x. *M. F. Enema.* Or,

22. *R. Decoct. com. pro. Clyſt.* ℥viij. *Syr. de Rhamn. Cathart.* ℥ij. *Ol. Chamæmel.* ℥j. *M. F. Enema.* Or,

23. ℞. *Decoct. commun. pro Clyſt.* ℥viij. *Vin. Benedict.* ℥j. *Sal. Gem.* ℥ſs. *Ol. Succin.* ʒij. *M. F. Enema.*

With regard to the *urgent Symptoms*; Pains of the Head, Watchfulneſs, and *Deliria*, are to be relieved by *emollient* and *laxative Clyſters*, gentle Purgatives, cupping with Scarification, opening the frontal Vein, Lotions of the Feet, and *Narcotics*. Likewiſe Linen Cloths may be applied to the Temples, dipped in the following Mixture:

24. ℞. *Acet. Roſar.* ℥ij. *Opii Camph. an.* ℈ij. *in Sp. Lavend. Comp.* ℥j. *ſolut. M.*

Bliſters are alſo uſeful for the ſame Purpoſe.

Convulſions require much the ſame Treatment externally and internally; *Aurum Muſivum*, (the Doſe from four Grains to a Scruple) Compound Spirit of *Lavender*, and chiefly *Pulv. de Gutteta Mayerni*, in proper Juleps. To reſtore the Strength of the Patient, little more is required than a Stomach Purge or two, mild and agreeable Bitters, and a Reſtorative *Regimen* of Broths, Jellies, and white Meats: If theſe ſhould fail, Recourſe may be had to the following:

25. ℞. *Conſerv. Flaved. Aurant.* ℥ij. *Zinziber. condit.* ℥j. *Corn. C. C.* ℥ſs. *Ol. Ginam. gut.* vi. *Syr. è Cort. Aurant. q. ſ. ut fiat Electarium. Capiat Quant. N. Moſchat. ter in die.* Or,

26. ℞. *Conſerv. Fruct. Cynoſbat.* ℥ij. *Zinziber. condit.* ℥ij. *Croc.* ℈j. *Sp. Sulph. per Campan. gut.* xv. *Syr. Lim. q. ſ. in eoſdem Uſus.*

If the *yellow Tincture* remains upon the Skin, give a *Vomit* of *Ipecacuanha*, and a Purge or two, with the Decoction of *Senna*, *Tamarinds*, &c. and allow the Uſe of *Lemons*, *Oranges*, and other acid Fruits. If this Diſorder proves obſtinate, treat it as the *Jaundice*.

If a *Diarrhœa* ſucceeds, it is not to be ſtopt ſuddenly, provided the Patient can bear it: Otherwiſe ſoft, mucilaginous, nutritive, *antibilious* Subſtances are proper, ſuch as *Jellies* with Lemon-Juice, Broths acidulated, and the *Decoctum Album* for common Drink. But when the diſcharged Matter becomes thin, pituitous, and white, treat it as a *Diarrhœa*. TOWNE.

Of the SENEGAL FEVER.

THE Fever which chiefly prevails in this Country in the Months of *July*, *Auguſt*, and *September*, is of the worſt Kind. It uſually begins with *Drowſineſs*, *Laſſitude*, and *great Rigors*, which continue frequently three or four Hours, and are ſucceeded by *intenſe Heat* and *Sweats*. For three or four Days it *remits*, and both the Shiverings and hot Fits become more moderate. During this Period, the *Pulſe is quick and low*; but afterwards becomes *fuller*, unleſs ſome Evacuation intervene. At this Time *profuſe Sweats* are eaſily brought on; in which

Caſe

Caſe there are little Hopes of Recovery. A *parched, dry Skin*, is as bad a Symptom, if it continues more than a Day; for an *intermitting Pulſe* and a *Delirium* ſucceed, and continue for ſeven or eight Days, the Frequency of the Intermiſſions increaſing every other Day: But if a *general moderate Moiſture* comes on at this, or any other Time of the Diſorder, and continues, the Patient recovers. A *violent Pain in the Back*, and *Difficulty of Breathing*, are general Complaints. *Sudden Languors*, and *bilious Vomitings*, are frequent through a great Part of the Time.

Some are taken with a *great Heat*, and a *ſtrong quick Pulſe*, without any Shiverings or Remiſſions, as abovementioned. In this Caſe the Patient ſooner dies upon the Appearance of bad Symptoms, and is longer in recovering, upon the Appearance of good ones.

The *Loſs of eight or ten Ounces of Blood*, in the firſt Attack of theſe Fevers, has *ſunk the Pulſe* beyond a Poſſibility of *raiſing it afterwards*, and that even in plethoric Habits, attended with great Pains of the Head. It is, indeed, ſurpriſing, how little theſe Fevers will bear of *Evacuations* of any Kind, eſpecially *Bleeding*. Two Men, of nearly the ſame Habit, were taken ill at the ſame Time, and in the ſame Manner. From one of them was taken *about ſix Ounces of Blood*, and then they were treated alike in every other Reſpect. The *Bleeding* protracted the Recovery of the one to *almoſt double the Time* of the other. This Experiment was afterwards repeated in two other Perſons with the like Event; after which it was never put in Practice.

After *profuſe Sweats*, the Pulſe becomes *extremely ſlow*; and, though the Sweating goes off, continues ſo for two or three Days, with Anxiety and Reſtleſſneſs: After which the Pulſe grows quick, the Skin parched and hot, and a Series of bad Symptoms comes on. None *in this Way* have been known to recover.

The Sick are always *comatoſe and ſtupid*, which Symptom is little dangerous when attended with a *warm Moiſture on the Skin*, but otherwiſe it is *generally fatal*.

It is of great Conſequence to *keep up the Pulſe*; but here the *common cordial Medicines* are ineffectual; yet the *Decoction of the Bark*, with the *camphorated Julep*, and *Spirit of Vitriol*, anſwers this Purpoſe effectually, ſo as to render any other Medines unneceſſary, except occaſionally a *gentle Emetic*, or *Laxative*. VAGE.

Of

Of the Inflammation *of the* Stomach.

THE *Inflammation* of the *Stomach* is known by a *burning*, *fixed* and *pungent Pain* in the Stomach, which is exasperated at the Instant any thing is taken into it; and is succeeded by a most *painful Vomiting* and *Hiccup*. There is always a violent internal Heat, high Anxiety, and a grievous Pain about the *Præcordia*, chiefly at the Pit of the Stomach, an acute, continual Fever, great Thirst, difficult Breathing, Inquietude, tossing of the Body, Coldness of the extreme Parts, a hard, contracted, quick, and sometimes unequal Pulse. Boerh. Hoff. In the *Med. Essays* we have Instances of this Disease being attended with a *Hydrophobia*.

This is a more common Disease than is generally attended to, and was called *Epiale*, or *Lipeiria*, by the Ancients. It may be distinguished from other Disorders of the Stomach; for in the *Cardialgia*, called by the Ancients the *Cardiac Passion*, there is also a great Anxiety about the *Præcordia*, a pressing acute Pain reaching to the Back, a Coldness of the Extremities, a constant *Stimulus* to Vomiting, with Inquietude: But the Heat in the Region of the Stomach is not so violent, nor is the Thirst and Dryness of the Tongue so great, nor the Pulse so quick and contracted, and the Stomach can better bear and retain any thing taken inwardly; nay, is frequently relieved thereby. An *Inflammation* of the *Intestines* has a Pain or Gripes more about the Region of the Navel, with frequent, frothy, bilious Stools, or a little bloody, with a Heat over all the Surface of the Body, and a quick large Pulse: Whereas, in this Disease, the Extremities are cold.

If it be caused by drinking cold Liquors when the Body is hot, or from an Effusion of the Bile after violent Commotions of the Mind, the Danger is not very great, as there will be Room for suitable Medicines to take Effect: But that which arises from drastic Purges, sharp Emetics, or caustic Poisons, kills quickly, without speedy Assistance. This Disease likewise often proves fatal to the Old, the Infirm, the Scorbutic, and Persons full of Grief, as also in the End of acute Diseases.

When there is a restless Tossing of the Body; when Liquids are immediately thrown up; when there is a Hiccup, a Fainting, an *Hippocratic Face*, an intermitting Pulse, and Convulsions, a fatal Mortification will soon terminate the Patient's Life.

This

This Diſeaſe, if not ſuddenly cured, is generally mortal: And therefore, as ſoon as it is diſcovered, plentiful Bleeding is neceſſary, and muſt be repeated as the Violence of the Symptoms increaſes. Let the Drink be very ſoft, antiphlogiſtic, and emollient, as alſo Clyſters of the ſame Kind. BOERHAAVE.

The Patient ſhould totally abſtain from every thing that is acrimonious; even the cooling, nitrous Salts, which are beneficial in other Inflammations, irritate too much. *Vomits*, *Cordials* and *ſpirituous Liquors*, are little better than Poiſon; *Milk* generally curdles.

Aliments ſhould be given frequently, and by a Spoonful at a Time; for any Diſtenſion increaſes the Inflammation. A thin Gruel of Barley, Oatmeal, Whey with very little Sugar or Honey, or Chicken-Broth, are proper Aliments; Whey-Emulſions, Barley-Water, emollient Decoctions, are proper Drinks. ARBUTHNOT.

The *Indications of Cure* are, 1. To open the Obſtructions cauſed by tenacious Juices impacted into incongruous Veſſels. 2. To remove the ſpaſtic Strictures which contract the Veſſels, and to reſtore the equable and natural Progreſs of the Blood, through the Subſtance of the Stomach. Theſe Ends are to be obtained by *Diluents*, *Humectants*, *Demulcents*, *Antiſpaſmodics*, and Things that reſtrain the Heat which thickens the Fluids, and relax the conſtricted Fibres.

But as there are more Cauſes than one that produce an Inflammation, they will require different Remedies to bring about a Cure.

Therefore if it be owing to a cauſtic, ſeptic, arſenical Poiſon, or a ſtrong Emetic or Cathartic, or to Metallic Medicines ill prepared, and thence the Inflammation; oily fat Things are proper, as new Milk, Cream, Oil of Sweet Almonds, or Olive-Oil taken often and plentifully.

If from a Spaſm, ſucceeding a violent Commotion of the Mind, then a nitrous abſorbent Powder will be proper, in an Emulſion of White Poppy Seeds. When the Spaſm is appeaſed, *Rhubarb* with Raiſins will be neceſſary to carry off the *bilious Sordes*.

When an eruptive Matter is repelled, and cauſes this Diſeaſe, uſe Emulſions of the greater Cold Seeds, with temperate Bezoardic Powder; now and then adding a little Nitre and a ſmall Matter of Camphire. If contagious *Miaſmata* ſuddenly offend the Stomach, then give a very gentle Emetic; and afterwards mild diaphoretic Powders, with Nitre and a little Camphire; or *gutt.* viij. or x. of an Ounce of

Oil

Oil of Sweet Almonds, in which a Dram of Camphire is diſſolved.

If from a *cauſtic Bile*, as in the *Cholera Morbus*, and Inflammation is apprehended, *earthy Abſorbents* and *Hartſhorn* philoſophically prepared ſhould be given, with gelatinous Decoctions of Calves and Neats Feet, or Hartſhorn Jellies and Water Gruel. Outwardly, the following Liniment is uſeful in all Caſes:

1. ℞. *Ol. Amygdal. Dulc.* ℥ij. *Camphor.* ʒj. *M. F. Linimentum cum quo Præcordia frequentius inungenda, & ſuperius ponenda Lintea calida.*

The following *Epithem* is an egregious *Diſcutient* and *Sudorific:*

2. ℞. *Acet. Roſar.* ℥ij. *Spir. Vin. Camphorat.* ʒij. *Tinct. Croc. Tinct. Caſtor. an.* ʒj. *Nitr.* ʒſs. *M. F. Epithem. & tepidè Præcordiis admoveatur.* HOFFMAN.

If there happens an Impoſthume, Honey, and even Honey of Roſes taken inwardly, is a good Cleanſer, and Decoctions of Comfry Roots, healing.

In a *Schirrus* or *Cancer* of the Stomach, the ſame Regimen may be obſerved, tho' nothing will prove effectual. ARBUTH.

When an Inflammation has continued for ſome Time, *Opiates* are dangerous; for they bring on a Mortification. Cold Things are hurtful, therefore Nitre muſt be given only in ſmall Doſes, and often, with Milk or Emulſions. In a *grievous Cardialgic Pain*, all Things that irritate muſt be avoided, particularly Emetics and Purges.

Lind obſerves, that for ſeveral Months, during the dry Seaſon, *Senegal* is as healthful and pleaſant a Country as any in the World: But ſoon after the rainy Seaſon begins, a low malignant Fever ſpreads itſelf among the *Europeans*. It ſeems to proceed from a Poiſon, as it were, got into the Stomach, beginning with ſevere Reachings, and often with a vomiting of Bile. Upon its firſt Attack in this Way, it is proper to adminiſter a few Grains of Emetic Tartar, and if this Medicine operates both upwards and downwards, it commonly relieves, and often entirely abates all the Symptoms; but this lucid Interval continues only a ſhort Time, for commonly in ſix Hours afterwards, the Fever and Vomiting return, accompanied with a Delirium. The Adminiſtration of a ſecond Emetic does not produce ſo good an Effect, or a Remiſſion of the Fever. A ſecond Remiſſion is ſometimes accompliſhed by the *Julepum è Camphora. Pharmacop. Londinenſ.* and the *Hauſt. Salin. Pharmac. Edinburg*, and then the Bark is to be adminiſtred

ſtered without Delay. In ſome, the Fever is very malignant, and the Patient dies, ſoon after its Attack; the Corpſe appearing of a yellow Colour, and the Skin ſtained with livid Spots or Blotches. Bliſters are ſeldom applied till the Patient is comatoſe, and then they produce good Effects.

The Bark ſhould be given immediately after the firſt Remiſſion of the Fever has been procured by Vomits. A more early Application of Bliſters is adviſeable, if the Fever be remarkably low.

An inflammatory Fever is ſeldom obſerved during the Seaſon of Sickneſs in this Part of the World; though the Flux may ſometimes make its Appearance at other Seaſons, and is a Diſtemper very common, and often fatal to *Europeans* in *Guinea*. The moſt mortal epidemic, however, is that low, malignant Fever, of the remitting Kind, which rages only in the wet Seaſon.

In dangerous Caſes, a Quarter of an Ounce of Bark ought to be adminiſtered in Wine every two or three Hours, until an Ounce and half of that Medicine has been taken, and ʒvj. of it every twenty-four Hours afterwards.

So much Harm has been done here by the Lancet, in the Hands of ſuch as have read only *Sydenham*'s Works, or Authors who treat of inflammatory Fevers only, that it is moſt adviſeable for the inexperienced in ſuch Climates to abſtain altogether from its Uſe, and to truſt the Safety of their Patients, in ſuch Caſes, to Vomits, and the early Application of Bliſters, and the Uſe of the Bark upon the firſt Remiſſion.

It is a melancholy but a certain Truth, that the Maintainance of a military Eſtabliſhment at *Senegal*, for three Years, during the laſt War, was attended with an annual Loſs of above a thouſand Lives; and ſince the late Re-eſtabliſhment of a military Government there, the Mortality has been very conſiderable. Many of the Officers and Soldiers who ſince embarked for that Part of the World are now dead; and the preſent Governor, with the poor Remains of his Corps, may be ſaid to have been kept alive chiefly by repeated Doſes of the *Peruvian* Bark.

I cannot help further obſerving, that the warm Woollen Cloaths, and the black Hats, which conſtitute the Regimental Dreſs of an *Engliſh* Soldier, are altogether improper in hot Climates; as in thoſe Countries, the Men, during fatiguing Marches, while ſweating under the oppreſſive Load of Arms, and warm Cloathing, are apt, in the Heat of the Day, to be ſuddenly ſeized with a Species of Apoplexy, occaſioned by the ſcorching Beams of the Sun darted on the Head, and abſorbed

by

by the Blackneſs of the Hat; to prevent which a White Covering for that Part ſeems requiſite. To recover the Patient from this Fit, immediate Bleeding is abſolutely required; notwithſtanding which, many die, and others remain deprived of their Senſes ever afterwards.

Of the QUINSEY.

A QUINSEY is an Inflammation of the *Fauces*, with a burning Pain, Tumor, and Redneſs; a Difficulty of Breathing or Swallowing, and a Fever, proceeding from a *Staſis* of Blood, or a viſcid acrid Serum in the ſanguineous or lymphatic Veſſels. HOFFMAN. It is commonly moſt rife between the Spring and the Summer.

It begins with a *Fever*, which is followed with a *Pain* and *Inflammation* of the *Fauces*, cauſing the *Uvula*, *Tonſils*, and *Larynx* to ſwell; whence great Difficulty of Breathing and Swallowing enſues. SYDENHAM.

This Diſeaſe may be ſeated at the Root of the Tongue, near the *Os Hyoides*; the *Foramina* of the Noſtrils opening to the Bone; the Beginning of the *Oeſophagus*; the Muſcles of the *Pharynx*; the internal and external Muſcles of the *Larynx*; the greater and leſſer Glands; the Tonſils, or the Muſcles moving the Jaws.

When a *Quinſey* affects the internal Muſcles of the Larynx, and there is no outward Redneſs about any Part of the Neck, but a burning Pain inwardly, a Loſs of Voice, and great Difficulty of Breathing; it often kills in twenty-four Hours. This is called a *Kynanche*. When it is ſeated in the internal Muſcles of the *Pharynx*, it is called a *Synanche*, in which there is no external Tumor and Redneſs, but a great Difficulty of Swallowing and Breathing, and whatever is drank returns through the Noſe. When there is an outward Tumor and Redneſs, and the external Muſcles of the *Pharynx* are affected, it is a *Paraſynanche*; when the external Muſcles of the *Larynx*, a *Parakynanche*.

A *Quinſey* is likewiſe diſtinguiſhed into the *true* and *ſpurious*. The *true* ariſes from the *Staſis* of the Blood; the *ſpurious* or *baſtard* from a Congeſtion of the *Serum*. The former is *acute*, always attended with a *Rigor* and a *Fever*. The latter has rather a *Lymphatic* or *Catarrhal*, than an *Acute Fever*. The firſt has not only a burning, pricking Pain in the inner Parts of the

Fauces,

Fauces, but the Tongue is turgid with Blood, and of a dark reddiſh Colour; the Face is likewiſe red; there is a great Pulſation of the Temporal Arteries; ſometimes a Head-ach, a *Torpor* of the Senſes; ſometimes Fainting.

When it is very violent there is a Difficulty of Breathing, high Anxiety, and Coldneſs of the Extremities, and is very dangerous, requiring ſpeedy Help. But in the *ſpurious*, thoſe Symptoms are either abſent, or more mild; nor is the Danger ſo great.

The *Quinſey* may be alſo diſtinguiſhed into the *dry*, or *highly ardent*, and the *moiſt*, or *greatly mucous*. The firſt is from the Blood, with a very acute Fever, as was ſaid of the true. But the other is more *chronic*, and attends *catarrhal Fevers*, being common to the *Scorbutic* and *Cachectic*. The Tongue is covered with a *viſcid Mucus*, and the Breath ſtinks.

This Diſeaſe may be cauſed by a Suppreſſion of ſome uſual ſanguineous Evacuation; by admitting the cold Air after a ſtrong Sudorific has been taken; and by lying in Rooms new plaiſtered or white-waſhed. Some cauſtic Poiſons affect the Throat more than other Parts. *White Hellebore* attacks the *Fauces*, and brings on a Strangulation. The ſame enſues from the *Solanum furioſum*, and the Bite of a mad Dog. The Fumes of Arſenical and Mercurial Minerals, as alſo the Vapours of mineral Spirits, will have the ſame Effects. It has been produced by a Fiſh-Bone ſticking in the Throat.

It ſometimes comes on *ſpontaneouſly*, and is again the Symptom of another Diſeaſe, as the *Diarrhœa* and *Dyſentery*, eſpecially if the Flux is haſtily ſtopped. It has happened from the ſtriking in of an *Eryſipelas*; or from the Gout being injudiciouſly treated with Topicks; as alſo from the Small-Pox, or a malignant or peſtilential Fever. The Cauſe of the ſymptomatic Diſeaſe is Coſtiveneſs, or ſuppreſſed Perſpiration, or the ſtriking in of Eruptions. When it is epidemic, it has ſomething of Malignity.

When the Swelling, Pain, and Redneſs appear more outwardly, and vaniſh by Degrees, it is a Sign of a happy Solution of the Diſeaſe. But when the external Swelling ſuddenly diſappears, without a Mitigation of the Symptoms, it ſhews the morbific Matter to be tranſlated elſewhere, and will change to a *Phrenſy* or *Peripneumony*. Or this Diſeaſe may terminate in a *Suppuration*, or *Gangrene*, or a *Schirrus*. A *Frothing* of the Mouth, the *Tongue vaſtly ſwelled*, and of a purple, blackiſh Colour, portend Death. HOFFMAN.

In theſe Inflammations a *ſlight Diarrhœa* relieves: Therefore Aliments which promote it are uſeful; as Tamarinds infuſed

in

in Whey, Decoctions of *farinaceous Vegetables* moderately acidulated, and such as abound with a cooling nitrous Salt, are proper. *Burnet* is said to be a Specific in this Case. *Mulberries* are beneficial, and all *Acids*.

The Mouth and Throat must be kept moist, and the Nose clear, that the Air may have a free Passage through it. When the Patient cannot swallow, he may be nourished by Clysters, which I have known to have been done for a whole Week; after which the Tumour has suppurated. ARBUTHNOT.

Take away Blood plentifully from the Arm. SYD. By a large Orifice. BOERH. And afterwards open a *sublingual Vein*; but bleeding in the *Jugular* yields the best Assistance. HOFF. And is much more safe. If the Symptoms continue to be very urgent, the Bleeding may be repeated in six or eight Hours Time, till they begin to be more mild.

After the first Bleeding, lay a strong and large Blister on the Fore-Part of the Neck, or a Piece of Flannel dipt in the volatile Liniment.

Then let the Parts inflamed be touched with the following Mixture:

1. ℞. *Mel. Rosar. q. v. Spir. Sulph. q. s. ad summum Acorem. M.*

Then the following *Gargle* is to be used, held in the Mouth till it is hot before it be spit out; which is to be repeated pretty often:

2. ℞. *Aq. Plantag. & Sperm. Ranar. an.* ʒiv. *(vel. Aq. Hordeat.* ʒviij.*) Rosar. rubr.* ʒiv. *Album. Ovor. in aquam agitando redact.* No. iij. *Sacchar. Crystal.* ʒij. *M. F. Gargarisma.* SYD. Or,

3. ℞. *Aq. Hordeat.* ℔j. *Mell.* ʒiij. *add. pro re nata Spir. Sal. Ammon.* ʒij. *M.* Or rather,

4. ℞. *Mixtur. Lact. & Aq.* ℔jss. *Ficuum* No. ij. *Coq. ad.* ℔j. *pro Gargarism.*

Two Drams of the *Spir. Sal. Ammoniac.* being added, will make it better; for it thins the *Saliva*, and brings the Glands to secrete more freely. Whereas *Acids* contract the Emunctories of the *Saliva*, and thicken those Humours, as *Pringle* observes.

When the *Fauces* are dry, hot, and the Tongue swells, with Difficulty of Breathing,

5. ℞. *Album. Ovor. in Aquam quassat.* ʒij. *Aq. Rosar.* ʒj. *Sal. Prunel. gr.* xij. *Syr. Cyden.* ʒj. *M. F. Linctus, sæpe sumend.*

And

And let the Neck be anointed, as well behind as before, with the following camphorated Oil:

6. ℞. *Ol. Amygdal. dulc.* ℥j. *Ol. Papav. alb.* ʒj. *Camphor.* ʒſs. *M.* HOFF.

Let the Patient alſo take the following cooling *Emulſion:*

7. ℞. *Ol. Amygd. dulc. excorticat.* No. v. *Sem. Melon. Pepon. an.* ℥ſs. *Sem. Papav. alb.* ʒiij. *Aq. Hordeat.* ℔jſs. *Aq. Roſar.* ʒij. *cum q. ſ. Sacchar. Cand. F. Emulſio. Capiat* ℥iv. *quarta quaque Hora.* SYDENH.

Boerhaave, after Bleeding, orders a *ſtrong Purge*, and if that cannot be taken, a *ſtrong Clyſter*; thus,

8. ℞. *Diagryd. gr.* xviij. *F. cum. Aq. Emulſio. Cujus* ℥ſs. *admiſce Syr. Roſar. Solut.* ℥jſs. *F. Hauſtus.*

9. ℞. *Fol. Sennæ* ℥j. *Decoct. cum Aq.* ℥viij. *admiſce Nitri* ʒij. *Syr. Roſar. Solut.* ℥j. *M. F. Clyſma.*

But *Hoffman*, who is an Enemy to all ſtrong Phyſic, preſcribes the following Decoction, as well to carry off the ſuperfluous Humours, as to abate their Sharpneſs.

10. ℞. *Mann.* ℥ij. *Nitri Stibiati* * ʒjſs. *Seri Lactis* ℥x. *M. F. Decoctum.*

If this cannot be taken by the Mouth, then a Clyſter.

11. ℞. *Lact.* ℥viij. *Ol. Amygd. dulc.* ℥ij. *Mell.* ℥j. *Sal. commun.* ʒij. *Nitri* ʒj. *M. F. Clyſter.* HOFF.

Emollient Steams, or even the Steam of hot Water, taken in at the Mouth, are beneficial.

If the Patient is not able to ſwallow any Nouriſhment,

12. ℞. *Jus Carnium* ℥v. *Sal. Nitr. gr.* x. *Sp. Sal. gutt.* vj. *M. F. Clyſma.* Let it be injected every eighth Hour, after the Belly has been cleanſed with a *purging Clyſter.* BOERH.

* This Preparation is not in the *London Diſpenſatory*, but may be ſeen in that of *Edinburgh*. If you take the *Waters* in which the *Calx* of Antimony is waſhed, and filtre them, and evaporate to a Pellicle, you will have this *ſtibiated Nitre*, which *Boerhaave* ſays, is a gentle Aperient, and is good in inflammatory Caſes, as in the *Small-Pox*, *Meaſles*, *Pleuriſy*, *Peripneumony*, and acts without Violence by *Sweat* or *Urine*. He likewiſe affirms, that the Calx unwaſhed is a better Medicine than the waſhed, and may be given to half a Dram; that it is a gentle Aperient, and is good in acute Diſtempers. This laſt is the *great Diſſolver of Paracelſus*, and is given in Chronic Caſes, ſuch as the *King's Evil*, &c.

If the Tumour tends to a Suppuration, it is beſt promoted by holding fat dried *Figs* in the Mouth; and when the *Tonſils* are full of an *inflammatory Ichor*, *Honey of Roſes* mixt with *Spirit of Vitriol*, and often applied to the Part with a Pencil, is excellent. When the Thruſh in Children is attended with a Pain and Heat of the Tongue, the beſt Remedy is to anoint the Puſtules with Cream imbued with a little Nitre. HOFFMAN.

Outwardly, the following Cataplaſm may be applied:

13. ℞. *Pulp. Ficuum ping. Cepar. ſub. cinerib. coct. Rad. Lilior. alb. recent. an.* ℥ij. *Pulv. Flor. Chamæmel.* ℥j. *Sem. Lin. Fænugr. an.* ℥ſs. *cum. Decoct. Rad. Alth. & Ung. ex Alth.* ℥j. *F. Cataplaſma.* Or,

14. ℞. *Cataplaſm. vulg. de Pane & Lacte* ℥iv. *Ung. Sambucin.* ℥j. *Croc. Pulv.* ʒſs. *F. Cataplaſma ſæpe mutandum.*

In a latent, internal, exceeding hot *Quinſey*, the Mouth muſt be frequently moiſtened with *Milk* or *Cream*, with an Addition of *Sal. Prunel.* and *Syr. Papav. Rhæad.*

In *malignant Fevers*, when there is an Inflammation of the *Oeſophagus*,

15. ℞. *Nitr.* ʒj. *Camphor. gr.* iij. *Sacchar.* ℥j. *M. F. Pulvis.* This is to be given in an *Emulſion* of Sweet Almonds; and may alſo be held in the Mouth for ſome Time before it is ſwallowed.

That *inflammatory Pain* which ariſes from a ſharp ſalt *Serum* in the glandulous Parts of the *Fauces*, with Redneſs, and a copious *Flux of Saliva*, but without a Fever, may be cured with a *Gargle of Brandy alone*. I have alſo known an Inflammation of the Fauces happily cured with ten Drops of *camphorated Spirit of Wine*, in which a Grain of *Nitre* has been diſſolved, and ſuffered to paſs ſlowly down the Throat.

When there is a large Defluxion of an impure, ſerous Humour upon the *Fauces*, it requires a frequent Uſe of *gentle Laxatives*. Likewiſe a *Gargle* is excellent which has the following *Salt* for its *Baſis*:

16. ℞. *Cremor. Tart. Nitr. an.* ℥j. *Alum. uſt.* ʒſs. *Diſſolv. in Aceto diſtillato, & coagula ſ. Artem.*

17. ℞. *Hujus Sal.* ʒj. *Mell.* ʒij. *Aq. Hordeat.* ℥v. *M. F. Gargariſma.* Let the *Fauces* be often waſhed with this Mixture; or it may be injected with a *Syringe*. HOFFM.

The *acute and inflammatory Quinſey* may be defined *an Inflammation of ſome Part, or Parts, either within or contiguous to the Throat,*

Throat, rendering Deglutition painful, or impracticable; and when it is of the moſt dangerous Kind, likewiſe affecting Reſpiration.

When only Swallowing is impaired, the Parts inflamed may be the Tonſils, the *Velum Palati*, and *Uvula*, the Muſcles of the *Pharynx*, and thoſe of the *Larynx*, which raiſe it or pull it down in Deglutition, but whoſe Action is not concerned in moderating the Aperture of the *Glottis*; while the *Larynx* itſelf, and the *Aſpera Arteria*, remain free.

But when the Reſpiration is pinched, beſides other Parts, theſe Muſcles, which are employed in opening and ſhutting the *Glottis*, muſt be inflamed; and, likewiſe, probably the inner Membrane of the *Larynx*, and thoſe Muſcles and Fibres that join the Rings of the *Aſpera Arteria* together: And ſometimes theſe minute and remote Parts are affected without any Redneſs or Tumour, either within the Fauces, or outwardly on the Throat: This Kind of Quinſey is the moſt dangerous and ſuddenly deſtructive of all.

The Practitioner in every Kind of Quinſey ought to look carefully into the Mouth and Fauces, in order to diſcern where any *Redneſs* and *Tumour* is; that, by comparing the Appearance of the Parts with the Functions impaired, he may be enabled to form the better Judgment with Reſpect to the *Seat* of the Diſeaſe, the *Prognoſtic*, and *Method of Cure*.

If the *Breathing is remarkably affected*, there is an abſolute Neceſſity of applying all the moſt efficacious Remedies, with the greateſt Briſkneſs and Speed poſſible. Theſe are *plentiful and repeated Bleedings*, a *large Bliſter* between the *Scapulæ*; *Fomentations* and *Cataplaſms* outwardly; *Steams* to be received into the Throat, the beſt Ingredient in which is *Vinegar*; *ſmart* but *cooling Purges*; or, if theſe cannot be got down, *Clyſters* of the ſame Kind; *Bathing* the Feet and Legs in *warm Water*, and even *Semicupia*, not made too hot, for fear of raiſing the Pulſe too high.

But even though the Reſpiration ſhould not be affected at firſt, if the Symptoms are otherwiſe violent, Remedies ought to be ſmartly and quickly applied to prevent *Suppuration*. For when the inflamed Part tends to Suppuration, the Tumour keeps increaſing; and when the Pus is actually formed, the Bulk may be ſo enlarged as to endanger *Suffocation*: Or the Patient may be ſtarved by a *total Privation of Swallowing*; ſo that Suppuration ſhould always be prevented, if poſſible.

If, in the Courſe of the Diſtemper, the Patient ſhould run a Riſque of being ſuffocated, the Surgeons have thought on a Way of giving Relief, and poſtponing Fate, by *opening the Aſpera Arteria*, an Inch or two under the *Pomum Adami*, or Body of

the *Larynx*, cutting between two of its Rings, and putting a Silver or Lead Canula into the Aperture; so that the Patient may breathe through it, instead of the Glottis. This Operation, called *Bronchotomy*, is *perfectly safe, and easily performed*; but Prudence should direct the Operator to give Warning before hand, that, in case the worst falls out, the Patient's Death ought in Justice to be imputed to the *Disease*, and not to the *Operation*.

If the Tumour comes to suppurate, and the Surgeon can reach it safely with his Instrument, it *should be opened*. The smallest Quantity of Matter let out, will always give unspeakable Relief; and the rest, by using *Emollients, and gently detergent Gargarisms*, will follow. If it is out of Reach, *frequent syringing warm emollient Liquids into the Throat*, with the like Cataplasms outwardly applied, are the chief Means, within the Power of Art, to promote its breaking.

If the Patient is in Danger of being starved, besides *nourishing Clysters*, a Bath, or *Semicupium of warm Milk*, or *Broth*, may, no doubt, be used with Success, considering the acknowledged Certainty of Absorption through the Pores of the Skin. FLEM.

In the Philosophical Transactions, the Jelly of *Black Currants*, swallowed down leisurely in small Quantities, is asserted to be a *Specific* for a *Quinsey*; and in the Winter, a Decoction of the Leaves, or Bark, in Milk, when the *Jelly* cannot be had, used as a *Gargle*, is said to cure all *inflammatory Distempers* of the Throat.

Of the Malignant QUINSEY, *or* putrid SORE THROAT.

THIS Disease generally comes on with such a Giddiness of the Head as often precedes Fainting, with a Chillness or Shivering like that of an Ague Fit, followed by great Heat; and these alternately succeed each other for some Hours, till at length the Heat becomes constant and intense. The Patient then complains of an acute Pain in the Head, of Heat and Soreness, rather than Pain, in the Throat; Stiffness of the Neck; commonly great Sickness, Vomiting or Purging, or both. The Face soon after looks red and swelled, the Eyes inflamed and watery, as in the Measles; with Restlessness, Anxiety, and Faintness.

It

It frequently seizes the Patient in the fore Part of the Day; and as Night approaches the Heat and Restlessness increase, continuing till towards Morning; when, after a short, disturbed Slumber, the only Repose during several Nights, a Sweat breaks out, which mitigates the Heat and Restlessness, and gives the Disease sometimes the Appearance of an Intermittent.

If the *Mouth* and *Throat* be examined soon after the first Attack, the *Uvula* and *Tonsils* will appear swelled; and these Parts, together with the *Velum Pendulum Palati*, as well as the Cheeks on each Side, near the Entrance into the *Fauces*, and as much of the *Fauces* and the *Pharynx* behind as can be seen, *appear of a florid red Colour*. This *Colour* is commonly most observable on the posterior Edge of the Palate, in the Angles above the *Tonsils*, and upon the *Tonsils* themselves. *Instead of this Redness*, a broad Patch, or Spot, of an irregular Figure, and of a *pale white Colour*, surrounded with a florid Red, is sometimes to be seen. This Whiteness is commonly like that of the Gums after having been pressed with the Finger; or, as if a Matter ready to be discharged lay underneath.

Generally, on the *second* Day, the *Face*, *Neck*, *Breast*, and *Hands*, are of a deep erysipelatous Colour, with a sensible Tumefaction. The *Fingers* are so frequently tinged in a remarkable Manner, that it has been no hard Matter to guess at the Disease from a bare Sight of them.

A great Number of *small Pimples*, of a more intense Colour than that which surrounds them, appear on the Arms and other Parts. Where the Redness is least intense they are larger and more prominent, which is generally on the Arms, Breast, and lower Extremities.

As the *Skin becomes red*, the *Sickness* commonly goes off, and the *Vomiting* and *Purging* cease, which commonly happens after the first Days.

The Appearance in the *Fauces* continues the same, only the white Place becomes of a more opake White, and is discovered to be a Slough, concealing an Ulcer of the same Dimensions. *These Ulcerations* are generally first discernible in the *Angles above the Tonsils*, or on the *Tonsils* themselves. They are also often seen in the Arch formed by the Uvula and one of the Tonsils; on the *Pharynx* behind, on the Inside of the Cheeks, the Basis of the Tongue, which they cover like a thick Fur. Where the *Disorder is mild* there is only a superficial Ulcer, of an irregular Figure, in one or more of these Parts, scarce to be distinguished from the sound Part, but by the Inequality

of its Surface. Likewiſe the *Redneſs* and *Eruption* do not always appear, and in ſome not till the third, fourth, or fifth Day, or later.

The *parotid Glands* on each Side commonly ſwell, grow hard, and are painful to the Touch: If the Diſeaſe is violent, the Neck and Throat are ſurrounded with a large œdematous Tumour, ſometimes extending itſelf to the Breaſt, and by ſtraitening the *Fauces* increaſe the Danger.

Towards Night the *Heat and Reſtleſſneſs increaſe*, and a *Delirium* frequently comes on. This happens to ſome on the firſt Night. It is very remarkable that the Patient commonly returns a proper Anſwer to any Queſtion, but with unuſual Quickneſs; yet when they are alone, they generally talk to themſelves incoherently. However, at the firſt Tendency to this Diſorder, they affect too great a Compoſure. This, for the moſt Part, happens to thoſe that ſleep but little; for *ſome are comatoſe* and ſtupid, and take but little Notice of any thing that paſſes.

They continue thus for three, four, or more Days, commonly growing hot and reſtleſs towards the Evening. Theſe Symptoms, and the *Delirium* increaſe as the Night comes on: A Sweat, more or leſs profuſe, breaks out towards Morning; and from this Time they are eaſier during ſome Hours, with a Faintneſs, which is their chief Complaint.

Some grow eaſier from the firſt Day of the Attack; others have Symptoms of Recovery on the third, fourth, or fifth Day. Firſt, the Redneſs of the Skin diſappears; the Heat grows leſs; the Pulſe, hitherto very quick, becomes ſlower; the external Swellings of the Neck ſubſide; the Sloughs in the *Fauces* are caſt off; the Ulcerations fill up; the Patient ſleeps without Confuſion, is compoſed when awake, and his Appetite begins to return towards more ſolid Nouriſhment.

The *Pulſe*, during the Courſe of this Diſeaſe, is very quick, beating frequently 120 Times in a Minute. In ſome it is hard and ſmall, in others ſoft and full, but not ſo ſtrong and firm as in genuine inflammatory Diſorders.

If *a Vein be opened* ſoon after the Diſtemper comes on, the *Blood* generally appears of a freſh and florid Red; the *Craſſamentum* is rather of a lax, gelatinous Contexture, than denſe or compact; the Serum is yellow, and in a large Proportion.

The *Urine* is at firſt *crude*, and of a *pale Whey Colour*; as the Diſeaſe advances it turns yellower, as if Bile was diluted in it; and ſoon after any Signs of Recovery appear, it commonly grows turbid, and depoſits a farinaceous Sediment.

They

They *ſeldom have any Stools* if the Symptoms are favourable, from the Time the Purging, which generally attends the Acceſſion, ceaſes. This Diſcharge is remarkably bilious, yet without Pain.

The Third is commonly leſs than in other acute Diſeaſes; and the Tongue generally moiſt, but not furred. Some have it covered with a thick, white Coat, and complain of Soreneſs about the Root of the Tongue.

Though the *Uvula* and *Tonſils* are ſometimes ſo much ſwelled as to leave a very narrow Entrance into the Gullet, and this Entrance frequently ſurrounded with Ulcers, or Sloughs, yet the Patient ſwallows with leſs Difficulty and Pain than might be expected. Soon after they are taken ill, they frequently complain of an *offenſive putrid Smell*, which often occaſions Sickneſs before any Ulcerations appear. The *Inſide of the Noſtrils*, in thoſe that have this Diſeaſe ſevere, frequently appears, as high as can be ſeen, of a deep red or almoſt livid Colour. After a Day or two, a *thin corroſive Sanies*, or with it a white putrid Matter of a *thicker Conſiſtence*, flows from it, ſo acrid as to excoriate the Part it lies upon any conſiderable Time. This is moſt obſervable in Children, or in young and very tender Subjects; whoſe Lips are likewiſe frequently of a deep red, or almoſt livid Colour, and covered on the Inſide with Veſicles containing a *thin Ichor*, which excoriates the Angles of the Mouth and Cheeks where it touches them.

This *acrid Matter* ſeems to paſs with the Nouriſhment into the Stomach, eſpecially of Children; for if they get over the Diſeaſe, a Purging ſucceeds, yet attended with Symptoms of Ulcerations in the Bowels: Theſe, after great Pain and Miſery, at length die emaciated.

The Patients ſometimes bleed at the Noſe towards the Beginning of the Diſeaſe; and the *Menſes* often appear in the Female Sex, if they are of Age, ſoon after they are ſeized, though at a Diſtance from the Time of their regular Period. It brings this Evacuation upon ſome that never had it before. This Flux, in full ſtrong Habits, is ſeldom attended either with Benefit or with manifeſt ill Effects, unleſs very copious; yet ſometimes it occaſions great Faintneſs, and an Increaſe of the other Symptoms. *Hæmorrhages of the Noſe and Mouth* have carried the Patient off ſuddenly: But this does not happen till ſeveral Days after the Attack; and perhaps may be owing to the Separation of a Slough from the Branch of an Artery.

Children and *young Perſons* are more expoſed to this Diſeaſe than Adults; Girls more than Boys; Women more than

Men; and the infirm, of either Sex, than the Healthy and Vigorous. Very few grown People have it, and not one has died of it, as far as I know. When it breaks out in a Family, all the Children are commonly infected with it, if the Healthy are not kept apart from the Sick: and such Adults as are frequently with them, and receive their Breath near at hand, often undergo the same Diseases.

With regard to the Cure, Bleeding is generally prejudicial. Some admit of it, at the first Attack, without any sensible Inconvenience; but a Repetition of it, in the mildest Cases, seldom fails to aggravate the Symptoms; it has sometimes produced very fatal Consequences. *It increases the Heat*, *Restlessness*, *Delirium*, and *Difficulty of Breathing*; nor do the Swelling of the *Fauces*, *Tonsils*, *&c.* receive any Benefit therefrom. On the contrary, though the Fullness of these Parts decreases, yet the *Sloughs* thicken and change to a livid black Colour, the external Tumour grows large, and the Spitting commonly diminishes. Indeed, the Heat and Quickness of the Pulse may seem to abate at first by this Evacuation, but they commonly return with greater Violence, the Patient is seized with a Difficulty of Breathing, falls into cold Sweats, a Stupor, and dies suddenly.

Nor is Purging more beneficial; even gentle Cathartics have brought on very dangerous Symptoms. Upon procuring a few Stools with *Manna*, especially when the Disease has continued two or three Days, the Redness of the Skin has disappeared, and the Flux to the Throat has been surprisingly increased. If this Discharge by Stool continues, the Swelling of the Neck commonly grows larger, the *Fauces* become flaccid, dry, and livid; and the Patient, a few Hours after this, expires.

Nitrous, *cooling Medicines*, frequently produce the like Effects; they increase the Faintness which accompanies this Disease, and either dispose the Patient to copious sinking Sweats, or Stools.

Upon the whole it appears, that all Evacuations which tend to lessen the natural Strength of the Constitution, are injurious; and those Persons are commonly in the greatest Danger who have been previously indisposed, or their Strength impaired by Grief.

If the Purging, therefore, *continues long* after the first Exacerbation of the Disease, it is a dangerous Symptom; for though it may sometimes be restrained for the present with *Opiates* or Astringents, yet it commonly returns with greater Vehemence when their Efficacy ceases, and in a short time exhausts the small Degree of Strength remaining. In this Case they generally sweat very little, the Fauces appear dry, glossy, and livid; the

the external Tumour grows large; they void their Excrements without perceiving it, and fall into profuſe Sweats; the Reſpiration becomes difficult and laborious, the Pulſe ſinks, the extreme Parts grow cold, and Death, in a few Hours, cloſes the Scene. The Eye loſes its Luſtre, and becomes opaque and dim, ſometimes ſeveral Hours before Death.

A *copious Flux of pituitous Matter* to the Glands, and other Parts about the Fauces, has ſeemed ſometimes to be the Cauſe of ſudden Death.

It is neceſſary that the Patient ſhould be kept in Bed as much as may be, though the Diſeaſe ſhould ſeem to be ſlight; for a Purging has come on for want of Care in this reſpect, the Redneſs of the Skin diſappeared, and a Diſorder which, with Confinement alone, would probably have gone off in twice twenty-four Hours, has been rendered tedious and difficult.

At the firſt, *while the Sickneſs and Vomiting continue*, it will be beſt to promote the Diſcharge, by giving an Infuſion of *Green Tea*, *Chamomile Flowers*, *Carduus*, or a few Grains of *Ipecacoanha*. This, in a few Inſtances, has cauſed the Diſorder to go off ſooner than was apprehended.

If the Symptoms do not abate by this means, give ſmall Draughts of *Mint Tea*, with a ſixth Part of *Red Port*, frequently, together with ſome warm and cordial aromatic Medicine, every four or ſix Hours. The *Pulvis Contrayerv. compoſ. Confectio Cardiac. Species arom. Vinum croceum*, *Aqua Menth. Spir. Aq. Alex. Spir. cum Aceto*, and the like.

The *Diarrhœa*, as well as Vomiting, generally ceaſes in leſs than twelve Hours from the firſt Attack: If it continues longer, it is neceſſary to check it; otherwiſe it occaſions great Faintneſs, ſinks the Strength, and in the End produces dangerous Conſequences. The *aromatic Cordials* above-mentioned, commonly take off this Symptom, if given plentifully, and the Vomiting likewiſe. If they fail, recourſe muſt be had to *Elect. Fracaſtor.* or *Elect. e Scordio*, diſſolved in ſoft Cinnamon Water, and given *poſt ſingulas Sedes*.

It is common for the Redneſs to appear on the Skin as theſe Diſcharges abate. On the other hand, a mild Cathartic will take off the Colour from the Skin, and bring the Patient into imminent Danger.

Patients generally complain of an *exceſſive Faintneſs* ſoon after they are taken ill. The Urgency of this Symptom ſeems to indicate the Degree of Danger; and an Abatement of it is a pretty ſure Preſage of Recovery. The *aromatic Medicines* already mentioned, are likewiſe found uſeful in removing this Symptom. Some may think them contra-indicated by the Degree of Heat

and

and Quickness of the Pulse; but the Faintness, Depression of the Pulse, and Increase of *Putrescency in the Fauces*, require them. A Dram of *Confectio Raghleana* was given to a Youth of Fifteen, every four Hours, which was soon followed by a sensible Amendment, and a Decrease of the Restlessness, Fainting, and Heat. *Wine* may be given in small Quantities, in Whey, or Mint, Baum, or Sage-Tea, Barley-water, Gruel, Panada, Sago, and the like; for it is not only an Antiseptic, but a generous Cordial. When the Faintness is excessive, it may be given alone. The Age, the former Way of treating this Disorder, and the Symptoms, afford the necessary Rules for the Quantity and Kind. Chicken-water and thin Broth, which are generally very acceptable to the Patient, may also be allowed. Children are frequently desirous of eating Chicken.

Blisters likewise relieve Faintings; they may be applied with Advantage to the usual Parts, and to the Neck on each Side, from below the Ear almost to the Clavicle, as Occasion requires.

With *regard to the Ulcers*, which demand our early and constant Attention: When the Disease is of the mildest Kind, only a *superficial* Ulceration is observable, which may escape the Notice of a Person unacquainted with it. A thin, pale, white Slough seems to accompany the next Degree; a thick, opaque, Ash-coloured one is a farther Advance: And if these Parts have a livid or black Aspect, the Case is still worse. These *Sloughs* are real Mortifications of the Substance, since, whenever they come off, they leave an Ulcer of a greater or lesser Depth, as the Sloughs were superficial or penetrating.

When the Tendency to Putrefaction is stopt, these Sloughs come off spontaneously, or their Separation may be promoted by suitable Remedies; but it must by no means be attempted by Force.

The *thin, acrid Ichor*, which is discharged from under the Sloughs, often proves of bad Consequence, especially to Children. If Gargles are injected, they either prevent them from reaching the Seat of the Disorder with their Tongues, or they swallow them and the putrid Taint of the Ulcers together, whence fatal Purgings ensue, or fatal Hæmorrhages from the penetrating Gangrene. Those that have a plentiful Discharge from the *Fauces*, carrying off this *Ichor*, are seldom attended with Sickness, Vomiting, or excessive Faintness; and where there is little or no Discharge, the Symptoms are commonly most dangerous.

Hence the great Advantage of gently stimulating Aromatic Gargles appears; because they promote the Discharge of pituitous Matter, and, doubtless, some Part of the corrosive Fluid along

along with it. To which, if we add Antiſeptics and Detergents, to check the Progreſs of the Mortification, and to cleanſe the ſordid Ulcers, every Indication will be anſwered.

When the Diſeaſe is mild, the Symptoms favourable, the Sloughs ſuperficial, order *a Gargle of Sage Tea*, with a few Roſe Leaves in the Infuſion. Three or four Spoonfuls of Vinegar may be mixed with Half an Ounce of the Tea, with as much Honey as will make it agreeably acid.

But where the Symptoms are urgent, the Sloughs large and thick, and the Breath offenſive, more efficacious Remedies muſt be uſed. The following Compoſition muſt be varied according to the Patient's Age, and the Circumſtances of the Diſeaſe:

1. ℞. *Decoct. Pectoral.* ℥vij. *cui intercoquendum, adde Rad. Contrayerv. contuſ.* ℥ſs. *Liquor. Colat. admiſce Acet. Vini alb.* ℥ij. *Tinct. Myrrh.* ℥j. *Mel. opt.* ʒvj. *F. Gargariſma.*

This is for Adults, and a few Spoonfuls of it, a little warm, ſhould be often injected into the Fauces with a ſmall Syringe, eſpecially before the Patient ſwallows any thing, to prevent the *putrid Sordes* from paſſing into the Stomach.

If the Sloughs are large, and are caſt off ſlowly, they may be touched with *Mel Ægyptiacum*, by Means of an armed Probe: Or, if this cannot conveniently be done, a Spoonful of the following Mixture may be injected, and retained in the Throat as long as the Patient can endure it, and then the Parts may be waſhed with the above Gargle alone, two or three Times:

2. ℞. *Gargariſm. præſcript.* ℥ij. *Mel. Ægyptiac.* ʒj. *Mix.*

By the conſtant and regular Uſe of theſe Applications, and keeping the Patient warm, treating him otherwiſe as directed, the febrile Symptoms generally diſappear, the Sloughs come off, and the Sores are diſpoſed to heal in a few Days.

It is not uncommon for Hectic Heats, Night Sweats, Want of Appetite, and Dejection of Spirits, to attend thoſe a conſiderable Time who have had the Diſeaſe in a ſevere Manner. *Aſſes Milk* commonly relieves them, together with a Decoction of the *Bark* and *Elixir Vitrioli*.

The *Cauſe* of this Diſeaſe ſeems to be a *putrid Virus*, or *Miaſma ſui generis*, introduced into the Habit by Contagion, principally by Means of the Breath of the ſick Perſon. Fothergill.

This Diſeaſe, ſays Dr. Wall, appeared in ſome Parts of *Worceſterſhire*, chiefly in low Situations, in 1748; it then went under the Name of the *Scarlet Fever*; it was ſoon found to be *infectious*, and that the *principal Seat of it was the Parts about the Fauces*; the Scarlet Efflorescence on the Skin being rather

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an accidental Symptom, than eſſential to the Diſeaſe. In ſome the Skin was covered with *Petechiæ* and purple Spots, and in one or two, where the Diſeaſe was farther advanced, *large black Spots* appeared on the Tonſils. Being convinced of its *putrid Tendency*, I preſcribed the *Bark, and other antiſeptic Medicines.* This Method immediately ſucceeded, both with regard to the *Petechiæ*, and the Ulcerations in the Throat. I recollect what I had formerly obſerved relating to the Small-Pox, *That nothing ſo immediately cures* a ſore Throat, *in the malignant Sort, as the* Bark *does.* And I was ſoon convinced, by a Multitude of Inſtances, that *for the ſame Reaſon it is truly a* Specifick *in the Caſe before us.*

I ſoon agreed with Dr. *Fothergill*, that the Intentions of Cure in this Diſeaſe is, *To keep up the* Vis Vitæ; *to encourage the cuticular Diſcharges*; *and to conquer the ſpreading Putrefaction. Therefore all Evacuations which leſſen the Strength, particularly Bleeding and Purging, and all the nitrous antiphlogiſtic Medicines, are highly improper.*

And ſince a *Laxity of Fibres* prediſpoſes Perſons to receive this Diſeaſe, as is evident from hence, that it affects Children more than grown Perſons, Females more than Males, thoſe who are ſituated in low moiſt Places more than thoſe who live in a higher and drier Soil, it is manifeſt, both with regard to the Preſervation and Cure, *tonic Medicines* are indicated; and among thoſe the Bark juſtly claims one of the firſt Places.

The only *certain Diagnoſtics* of this Diſeaſe, are *aphthous Ulcers and Sloughs on the Tonſils, and Parts about the Pharynx.* Very few here have had the *Scarlet Efflorescence* on the Skin. With ſeveral lately it has, on its firſt Seizure, ſeemed to be complicated with a Fever of the inflammatory Kind, the Pulſe being full and hard. But yet, if any Evacuations or nitrous Medicines were ordered on that Account, it has ſoon ſhewn its putrid Tendency, by the ſpreading of the Ulcers, ſinking of the Spirits, *&c.* In theſe Perſons the Blood has appeared with a ſizy Cruſt on its Surface, but the *Serum* was uſually of a yellowiſh Colour, and upon the leaſt Motion the *Cruor* generally mixes with it; ſo that the Blood here ſeems to be coagulated by the internal Heat, at the ſame Time that the Texture of the red Globules is lax and broken.

Moſt Perſons in the Beginning have a *Nauſea* and *Vomiting*, and ſome a Looſeneſs. They who are coſtive, have, upon the Uſe of the *gentleſt Eccoprotics*, immediately been ſeized with a *Diarrhœa*, difficult to reſtrain. All Medicines which tend to move the Belly, not excepting *Rhurarb*, are extremely dangerous.

Thoſe

Thoſe who have had the Diſeaſe with moſt Violence, have had the Head always heavy and ſtupid, and the Eyes foul and full of Tears. Not a few have had the Head covered with *Petechiæ* and *purple Spots*.

The firſt thing to be done, is to order *the hot Steam of a boiling Mixture, of Vinegar, Myrrh, and Honey to be received into the Throat, through an inverted Funnel.* If it is neceſſary to make it ſtill more penetrating, add ſome of the *Spirit. Mindereri.* This Steam can ſcarce be uſed too frequently, provided it is received with a due Degree of Heat.

This Vapour is very penetrating, reſolvent, antiputreſcent, and detergent, and much more efficacious than any Gargariſm or Injection can be. Beſides, it is leſs offenſive to the Taſte, and may be very eaſily and effectually applied to the affected Parts. Farther, this Steam medicates the Air, and the Chamber becomes more tolerable and leſs infectious to the Attendants; and the noiſome Smell of the Breath is conquered, or much corrected.

If the *Primæ Viæ* ſeem foul, or much loaded, it may be neceſſary to begin the Cure by cleanſing the Stomach with *Carduus Tea, in which a little Sal Vitrioli is diſſolved, and ſome other gentle and quick Emetic.* No other Evacuation ſeems proper, and this is only to be uſed at the very Beginning of the Diſeaſe. If the Phyſician is not called in ſoon enough, it will be neceſſary to begin immediately by giving the Bark, joined with the *Spir. Mindereri.* If an Efflorescence on the Skin appears, I ſometimes add the *Pulv. Contrayerv. compoſ.* In a *Diarrhœa* I uſually join *Caſcarilla* with it, or *Lign. Campechenſ.* or *Decoct. alb.* or the like. And in great Sickneſs of the Stomach, or Lowneſs of the Spirits, with the *Confect. Cardiac.* But if the Putrefaction is great, and the Pulſe quick and weak, I always add a few Grains of the Extract of Myrrh made with Water; *or from* ʒij. *to* ℥ſs. *of a Decoction prepared by boiling Powder of Myrrh in* ℥ix. *of Spring-Water to* ℥vi. *when ſtrained.* This I prefer to any thing elſe, for *Myrrh is one of the beſt Antiſeptics.* If the Medicines is deſired a little warmer, Myrrh in Subſtance may be mixed with it; for by grinding it with Sugar, and adding the Liquors gradually, it will be uniformly diſſolved into a *Lac*, and ſuſpended. But the Decoction or Extract ſits lighteſt on the Stomach.

The *Bark* is moſt efficacious in Subſtance; but when the Strength of the Patient is much reduced, and the digeſtive Powers weakened, which is uſual in *putrid Fevers*, on the very firſt Seizure, the Decoction or Extract may be thought preferable; but this laſt is ſeldom to be had genuine. In making

ing the Decoction, it ought to be done with as gentle a Heat as possible, and then evaporate very slowly to procure the Extract, lest it be burnt too, and that the volatile Parts may fly off as little as may be.

In the Use of the *Spiritus Mindereri*, Care should be taken that it be exactly neutralized, or rather, as the Disease is putrescent, that it may incline towards the Acid. This is particularly of Use where the Heat is very great, it being very attenuating and antiseptic.

I have been often agreeably surprized at the good Effects of the Method above recommended; if used early in this Disease, the Swelling of the Tonsils usually decreases; the Sloughs are cast off, and all the dangerous Symptoms are removed in three or four Days Time.

When the *Putrefaction is sufficiently conquered*, it will be necessary to cleanse the first Passages with a *small Dose of Rhubarb*; which is to be repeated at proper Intervals, continuing the *Bark*, *&c.* on the intermediate Days, for a considerable Time. For want of this Caution some Persons have been long afflicted with a constant fixed Pain in the Bowels, which seemed to proceed from some Excoriations or Ulcerations, occasioned by the Lodgment of *putrid Sanies* in the Intestines. To obviate this, in some measure, the Patient should never swallow his Spittle, and wash his Mouth always before he drinks or takes in any Sustenance.

To compleat the Cure, the Patient should enter into a Course of *Balsamics*, *Chalybeat Waters* with *Elixir Vitrioli*, and the like, in order to strengthen the Solids and invigorate the Blood; for this Disease is liable to return, especially if they have afterwards a Fever of the putrid Kind.

The *Small-pox* seems most disposed to associate with this Disease, and that not only in the *malignant Sorts*, but even when it is mildest and most distinct. But this is not very dangerous, because the same Method is proper in both Diseases. I have seen one Instance of a *sore Throat* and the Scarlet Eruption, complicated with the Measles. The Diaphoretic Antiseptic Method succeeded here *without* the Bark, which I was afraid to give, on account of the Cough and Straitness of the Lungs. *But this is a vain Fear*, says Dr. *Cameron*; for I used the Method above laid down, in complicated Cases of this Kind, and have had the Pleasure to observe, that both Diseases together yielded as easily as ever either of them did singly. The Fever and Cough ceased entirely on the eighth Day, though the Measles were conspicuous on the Face till the twelfth, and the Throat was not quite clear till some Days after.

after. This Method will likewiſe do in the *Meaſles alone*, omitting the Steam and the *Spiritus Mindereri*. I gave the Patients ſmall Doſes of the Bark in Subſtance, with a little of the watery Extract of Myrrh, every three Hours, in ſmall Cinnamon-water ſweetened with Sugar. The Meaſles kept their accuſtomed Stages, with leſs Diſturbance and Alarm than uſual.

Of the *malignant ulcerous ſore Throat*, which raged in *Plymouth*, and divers Parts of *Cornwall*, chiefly in 1752, Dr. HUXHAM gives the following Account.

The *Attack* was very different in different Perſons: Sometimes a Rigor, with ſome Fulneſs and Soreneſs of the Throat, and painful Stiffneſs of the Neck; Sometimes alternate Chills and Heats, with a Degree of Head-ach, Giddineſs, or Drowſineſs, were the firſt Symptoms. Others had great Pains of the Head, Back, and Limbs, a vaſt Oppreſſion of the *Præcordia*, and continual Sighing. Some Adults, on the contrary, moved about for a Day or two, neither ſick nor well, but under Anxiety, till forced to take to their Beds. But it commonly began with Chills and Heats, Load and Pain of the Head, Soreneſs of the Throat and Hoarſeneſs, ſome Coughs, Sickneſs at Stomach, frequently vomiting and purging, in Children eſpecially, and ſometimes very ſevere; though the contrary was more common to the Adult. In all, great Dejection, ſudden Weakneſs, great Heavineſs and Faintneſs from the firſt. The Pulſe, in general, quick, ſmall, and fluttering, though ſometimes heavy and undulating. The Urine moſtly pale, thin, and crude; however, in grown Perſons, ſmall in Quantity and high-coloured, or like turbid Whey. The Eyes heavy, reddiſh, and as if weeping. The Countenance very often full flushed and bloated, though ſometimes pale and ſunk.

At Night the Symptoms became greatly aggravated, and the feveriſh Heat very much increaſed. Sometimes a *Delirium* on the firſt Night; and the Acerbation returned in the Evening throughout the Diſeaſe. Towards the Decline, a Phrenzy often laſted all Night, though the Patient had been cool and ſedate in the Day time.

A few Hours after the Seizure, and ſometimes the ſame Inſtant, a Swelling and Soreneſs of the Throat were perceived, the Tonſils became tumid and inflamed, and often the maxillary Glands much ſwelled, and ſuddenly at the very Beginning, ſometimes even to threaten Strangulation. The *Fauces* alſo very ſoon appeared of a high florid Red, or rather bright Crimſon, ſhining and gloſſy; and frequently on the *Uvula*, Tonſils, *Velum Palati*, and back Part of the *Pharynx*, ſeveral whitiſh,

whitiſh, or aſh-coloured Spots appeared, ſometimes increaſing very faſt, and ſoon covered one or both of the Tonſils, *Uvula*, &c. Theſe in Event proved the *Sloughs* of ſuperficial Ulcers (which ſometimes, however, eat deep into the Parts.) The Tongue at this time, though only white and moiſt at the Top, was very foul at the Root, and covered with a thick, yellowiſh, or brown Coat. The Breath now began to be very nauſeous, and at length became intolerable, ſometimes even to the Patients themſelves.

The ſecond or third Day every Symptom became much more aggravated, and the Fever much more conſiderable; and thoſe that had ſtruggled with it thirty or forty Hours, were forced to ſubmit. The Reſtleſſneſs and Anxiety greatly increaſed, as well as the Difficulty in Swallowing. The Head was very giddy, pained, and loaded; there was generally more or leſs of a Delirium, ſometimes a *Pervigilium* and perpetual Phrenzy, though others lay very ſtupid, but often ſtarting and muttering to themſelves.

The Skin was very hot, dry, and rough; rarely any Diſpoſition to ſweat. The Urine pale, thin, crude, often yellowiſh and turbid. Sometimes a Vomiting, and ſometimes a great Looſeneſs, eſpecially in Children. The Sloughs now much enlarged, and darker, the ſurrounding Parts tending to livid. The Breathing more difficult, with a *rattling Stertor*, as if the Patient were ſtrangled, and the Voice hoarſe, as in *venereal Ulcers of the Fauces*. Any Perſon acquainted with the Diſeaſe, might know it by the Voice: None of that ſhrill barking Noiſe of inflammatory Quinſeys. The Breath inſufferably fetid towards the Criſis. Many, about the fourth or fifth Day, ſpit a vaſt Quantity of ſtinking purulent Mucus, oft tinged with Blood, and of an abominable Smell. The Noſtrils ſometimes greatly inflamed, and excoriated, dripping a ſharp *Ichor*, or *ſanious Matter*, ſo acrid as to corrode the Lips, Cheeks, and even Hands of Children; nay, the Fingers and Arms of their Nurſes, and this attended with an inceſſant Sneezing. The Diſcharge of this Matter was in Quantity ſurprizing, which they would often rub on their Faces, Hands, and Arms, and bliſter them all over. A ſudden Stoppage of it choaked them; ſome ſwallowed it, and had Excoriations of the Inteſtines, violent Gripings, Dyſentery, &c. with Rawneſs of the *Anus* and Buttocks. The Wind-pipe itſelf was ſometimes much corroded, and Pieces of its internal Membrane ſpit up with Blood and Corruption, whence the Patients lingered a while, and at length died tabid; but more

frequently

frequently it fell violently on the Lungs, and killed like a *Peripneumony*.

In general, a very conſiderable *Efflorescence* broke out on the Surface of the Body, particularly in Children, moſt commonly the ſecond, third, or fourth Day; ſometimes partial, ſometimes almoſt all the Body over, ſeldomeſt of all on the Face. Sometimes of the *eryſipetalous* Kind, ſometimes more *puſtular*; the Puſtules frequently very eminent, of a deep fiery red Colour, particularly on the Breaſt and Arms; ſometimes very ſmall, and eaſier felt than ſeen. The Efflorescence was quite of a Crimſon Hue, as if the Skin had been ſtained with the Juice of Raſberries, and this even to the Fingers Ends; the Skin inflamed, and, as it were, ſwoln. This Crimſon Colour of the Skin ſeemed, indeed, peculiar to this Diſeaſe.

An early and kind Eruption was moſt commonly a very good Omen, eſpecially when followed by a very copious Deſquammation of the Cuticle. But when it turned of a duſky livid, or prematurely or ſuddenly receded, every Symptom grew worſe and worſe, and the utmoſt Danger impended, eſpecially if purple or black Spots appeared, as ſometimes happened: the Urine grew limpid, and Convulſions came on, or a fatal Suffocation ſoon enſued.

The Diſeaſe was generally at the Height the *fifth* or *ſixth* Day, in young Perſons, in elder not ſo ſoon; and the *Criſis* was often protracted till the *eleventh* or *twelfth*, and then very imperfect: Yet ſome Adults were carried off in two or three Days.

If a gentle eaſy Sweat came on the third or fourth Day; if the Pulſe grew ſlow, firm, and equal; if the Sloughs caſt off in a kindly Manner, and appeared at the Bottom clean and florid; if the Breathing was more ſoft and free, and the Eyes looked vivid, a ſalutary Criſis followed ſoon by a Continuance of Sweat, turbid farinaceous Urine, a plentiful Expectoration, and a very large Deſquammation of the Cuticle. But if a Rigor came on, and the *Exanthemata* ſuddenly diſappeared, or turned livid; if the Pulſe grew quick and ſmall, and the Skin remained hot and parched, the Breathing more difficult, the Eyes dead and glaſſy, the Urine pale and limpid, a Phrenzy or Coma ſucceeded, with a cold clammy Sweat on the Face, or Extremities; all was loſt, eſpecially if a *Singultus*, or Gulping in the Throat, attended, with ſudden, liquid, involuntary, livid Stools, intolerably fetid.

In the *malignant ulcerous ſore Throat*, Bleeding and Purging, to any Degree at leaſt, were utterly improper. Inſtead of Bleeding, a Clyſter of Milk, Sugar, and Salt, eſpecially if

the Patient was costive, answered much better. If a Purging attended the Attack, a few Grains of *torrefied Rhubarb*, with *Species è Scordio*, *Decoct. alb.* &c. were proper; and, if the *Diarrhœa* were profuse, a Spoonful or two of *Decoct. Fracastorii Fulleri* was frequently given, and proved an efficacious Medicine. If *Nausea* and Vomiting were urgent, a gentle *Emetic*, especially for Adults, was serviceable; and so far from aggravating the Pain of the Throat, that it generally relieved it. Children were puked with a little *Oxymel Scillit. Essence of Antimony*, or the like; otherwise the tenacious *Mucus* would choak them.

The next thing exhibited was, a *saline Mixture of Salt of Wormwood*, or *volatile Salt of Hartshorn*, with *Juice of Lemon*, and *Aq. Alex. simpl.* to which was added *Pulv. Contrayerv.* with a little *Myrrh* and *Saffron:* or these last were given in a *Bolus*, with *Nitre*, if the Fever ran high. In Adults, a Grain or two of *Camphire* might be used, if the Stomach could bear it; else *Julep è Camph.* or *Acetum Camphoratum* were used, with *Syrup of Black Currants*, Rasberries, or the like. The second or third Day, to the *saline Mixture*, or a *temperate Cordial Julep*, was added a little *Tinct. Cort. Peruvian Alexipharmac.*

Elixir Vitrioli, with the *Tincture* of the *Bark*, was commonly given (except to young Children,) and frequently the *Elixir* was taken out of an Infusion of a roasted *Seville* Orange in Claret; or red Port Wine and Water was allowed.

The common *Gargle* was, a *Decoction of Figs*, *Red Rose-leaves*, *Myrrh* and *Honey* in *rough Cyder*, and a thin *Mucilage* of *Quince-seeds*, with Syrup of Rasberries, or black Currants, and a little *Tincture of Myrrh per se*, and *Spirit of Vitriol*, every now and then, especially after *Gargling*. And the *Fumes* of *Red Rose-leaves*, *Chamomile Flowers*, *Myrrh*, and *Camphire*, boiled in *Vinegar*, were ordered to be drawn in with the Breath very often, as hot as could be borne.

The Swelling of the Neck, parotid Glands, *&c.* being of a critical Tendency, were promoted by *acrid Cataplasms*, *Blisters*, &c. laid over the Throat, sometimes from Ear to Ear, with great Success.

When there was a Tension and Tumour of the Belly, with some Degree of a Suppression of Urine, an *emollient Fotus*, with some of the *Carminative Seeds*, or a few *Chamomile Flowers*, boiled in *Milk* and *Water*, and a Clyster of the same, with *Salt* and *Sugar*, were necessary. If the Abdomen was very tense, and the Patient costive about the fifth or sixth Day, a Dose of *Rhubarb*, *Manna*, or *Lenitive Electuary* was given, and after that commonly the *Bark* in *Substance*, but not before some Signs of Coction appeared. How-

However improper Purging might be at the Beginning of this Diſtemper, gentle eaſy *Cathartics*, as *Rhubarb*, *Manna*, *&c.* were neceſſary at the End, to carry off the putrid Colluvies of the Inteſtines, which otherwiſe protracted the feveriſh Heats, and occaſioned great Weakneſs, Want of Appetite, tumid Bellies, and great Obſtructions of the Glands: But, in general, after a Purge or two, the Sick recovered a keen Appetite, Strength, and Spirits.

Of a Phrenzy.

A *PHRENZY*, if a Primary Diſeaſe, is a true Inflammation of the *Dura* and *Pia Mater*; if *Symptomatical*, the inflammatory Matter is tranſlated into the *Meninges* of the Brain from ſome other Part.

The *Primary Phrenzy* is preceded by Heat and a violent inflammatory Pain within the Head, a Redneſs of the Eyes and Face, unquiet and troubled Sleep, a ſlight Degree of Folly, Watching, Sadneſs, Fierceneſs, ſudden Forgetfulneſs, a gathering of Threads from the Bedcloaths. (This is very ſeldom met with in theſe Parts of the World.)

A *Symptomatic Phrenzy* ſucceeds any acute Diſeaſe; but it is worſt when it is preceded by an Inflammation of the *Pleura*, Lungs, or Diaphragm. A black Tongue, an obſtinate Coſtiveneſs, Suppreſſion of Urine, white Fœces (which is always a fatal Sign,) pale, diſcoloured, thin Urine, a Wildneſs in the Looks and Actions, with a red Viſage, a black Cloud in the Urine, and Watching, are Signs of an approaching Inflammation in the Head. BOERHAAVE.

The *Symptomatic Phrenzy* ſometimes appears in the State of *malignant*, *eruptive*, and *ſpotted-Fevers*, the Small-Pox, malignant catarrhal Fevers, Camp Fevers, particularly the *Hungaric*, eſpecially when they are injudiciouſly treated. It generally ſupervenes about the critical Days, with a *Rigor*, trembling of the Joints, Tenſion of the *Præcordia*, and Coldneſs of the external Parts, with thin Urine. The Patient being weakened with the preceding Diſeaſe and long Watching, which debilitates the Tone of the Veſſels of the Membranes of the Brain; whence the *Staſes* are not to be reſolved, and whence the Patient is generally killed on the third Day.

A *Phrenzy* is to be diſtinguiſhed from that ſlight Alienation of Mind which happens in acute Fevers, before the critical Eruption.

tion. This goes off readily, nor is the Urine thin and watery, nor is attended with a *Rigor* and a Refrigeration of the external Parts: As alſo from a Deſipience and Raving, from a great Loſs of Strength and Weakneſs of the Brain after the Declination of an acute Fever; for this will go as the Strength returns, either ſpontaneouſly, or with proper Remedies.

Both Kinds, when preſent, have the following Symptoms:

A Deprivation of the Ideas of ſenſible Things, as alſo of the Faculties of the Mind and Affections; an unruly Fierceneſs and Wildneſs; an unquiet and often turbulent Sleep, a Reſpiration ſlow and great, the Face often exceeding red, the Aſpect grim, the Looks fierce, the Eyes wild and protuberant, a Dropping of the Noſe.

A *Phrenzy* is generally fatal on the *third*, *fourth*, or *ſeventh* Day; which laſt it ſeldom exceeds.

When it does, and is violent, it often ends in Madneſs, which increaſing gradually, the Patient becomes raving mad.

It often terminates in a Lethargy, *Coma*, or *Catoche*. BOERH.

The *Aliment* ought to be ſlender, of farinaceous Subſtances, as Water-gruel acidulated; the *Drink*, Barley-water, Small-beer, or the Decoction of *Tamarinds*.

This Diſeaſe, of all others, requires the ſpeedieſt Applications; profuſe Hæmorrhages of the Noſe often reſolve it, and copious Bleeding, by opening the Temporal Arteries, is the moſt efficacious Remedy. ARBUTHNOT.

The *Cure* of this Diſeaſe requires diligent Attention to the following Things:

Varices of the Veins, or the *Bleeding Piles* are beneficial.

A Looſeneſs is likewiſe good.

A Pain in the Breaſt and Feet, or a violent Cough ſupervening, often puts an End to the Diſeaſe; as alſo an *Hæmorrhage*.

Therefore *plentiful Bleeding* is neceſſary, through a large Orifice, or open ſeveral Veins at the ſame Time, *viz.* the *Jugular*, the *Frontal*, and a Vein in the Foot. BOERH.

Hoffman, from Experience, prefers the *bleeding at the Noſe*, procured by thruſting up a *Straw*, a *Pen*, or a *Skewer*; or, as *Pringle* adviſes, apply ſix or ſeven Leeches to the Temples. The reſt of the Cure conſiſts in Bliſters, and things common to other inflammatory Fevers.

The Cure of the *Symptomatic Phrenzy*, if the Pulſe will bear it, is by opening a Vein; but if this cannot be done by reaſon *of great Lowneſs*, it is to be attempted by Leeches and Bliſters. It is uſual to begin with bliſtering the Head, but in *military* Hoſpitals that is to be left to the laſt. The beſt internal Medicines are *Nitre* and *Camphire*. *Hoffman*'s Proportion is ſix

Grains

Grains of Nitre to one of Camphire. Small Doſes of which are to be often repeated.

But when this Diſeaſe is apprehended from the Suppreſſion of the *Lochia*, or the *Menſes*, ſpeedy and copious Bleeding in the Foot will be neceſſary. If from a Stoppage of the Bleeding Piles, then Leeches muſt be applied to the hæmorrhoidal Veins.

After Bleeding, *Cathartics* are proper; among which, the following is preferable to all others:

1 ℞. *Mannæ ad minimum* ℥iij. *Cremor. Tart.* ʒij. *Nitr.* ʒſs. *Ol. Amygd. dulc.* ℥j. *Ser. Lact.* ℔j. *M.*

The Patient's Drink ſhould be ſweet Whey, or acidulated by turning the Milk with Citron or Lemon Juice, and ſweetened with *Syr. e Meconio.* To every Quart add a Dram of purified *Nitre*, or *Sal Prunella.* Alſo Emulſions are convenient, of the four Cold Seeds, with Barley-water, to every Quart of which add two Scruples of Nitre.

Externally, warm Baths are proper for the Feet, or Linen Cloths dipped in hot Water, and applied to the Feet. But eſpecially let the Head be ſhaved all over, and embrocated with the following Mixture:

2. ℞. *Acet. Roſar.* [*vel. Acet. acerrim.*] ℥ij. *Spir. Roſar. in quo gt.* x. *Camphor. Solut.* [*vel Spir. Vinoſ. Camphor.*] ʒij. *Nitr. pur.* ℈ij. *Ol. Lign. Rhod. gutt.* xx. *M.* Hoff. Or,

3. [℞. *Acet. acerrim. Spir. Vin. Camph. Lavend. comp. Spir. Volat. Aromat. Spir. Roſmarin. an.* ℥ſs. *M. F. Embrocatio.*]

Antiphlogiſtic Clyſters are likewiſe proper: But if all theſe Means fail, Recourſe muſt be had to Cupping in the lower Parts, to Opiates, and mild Bliſters. Boerh. *Hoffman* is of Opinion, that the two latter will do more Hurt than good in this Diſeaſe. After all, *Boerhaave* adviſes the Phyſician to conſider, if the Caſe be *Symptomatical*, how far the foregoing Method, or any Part of it, is conſiſtent with the primary Diſeaſe.

Of the Pleurisy.

THE *Pleuriſy* is moſt predominant between the *Spring* and the *Summer.*

It begins with *Chillneſs* and *Shivering*, which are ſoon ſucceeded by Heat, Thirſt, Inquietude, and the other common Symptoms of a Fever.

After a few Hours the Patient is ſeized with a *violent pricking Pain* in one of his Sides, about the Ribs; which ſometimes extends itſelf towards the Shoulder-Blades, ſometimes towards the Back Bone, and ſometimes towards the Fore-parts of the Breaſt; and this is attended with frequent Coughing.

The Matter which the Patient ſpits at firſt is little and thin, and mixed with Particles of Blood; but as the Diſeaſe advances, it is more plentiful and more concocted, but not without a Mixture of Blood.

The *Fever* keeps an equal Pace with the Cough, Pain, and Spitting of Blood; and in Proportion as the Expectoration becomes more free, it ſenſibly decreaſes; ſometimes the Body is coſtive, ſometimes too open.

The *Blood* drawn from a Vein, as ſoon as it is cold, looks like melted Suet. SYDENHAM.

In this Diſeaſe the Pulſe is remarkably hard, and ſeems to vibrate like a tenſe String of a muſical Inſtrument, which is the *pathognomonic* Sign; and as for a *Spitting*, it is more commonly abſent than ſome will allow. HUXHAM.

Hence *Pleuriſies* are diſtinguiſhed into the *moiſt* and the *dry*. It is likewiſe obſervable, that the *Pain* in the Side is more *intenſe* at the Time of *Inſpiration*, but more *mild* at the Time of *Exſpiration*. BOERH.

There is no *Fever* wherein the *Criſes* are more regular than in the *Pleuriſy* and *Peripneumony*: For in young Perſons, and thoſe of a full Habit of Body, *bloody Spittle* generally appears on the *fourth* Day, and on the *ſeventh* the Diſeaſe terminates by a *profuſe Sweat*. But in the *Phlegmatic* and more *Inactive*, as alſo thoſe in whom the Diſeaſe has taken deeper hold of the Lungs, it will continue till the *eleventh* or *fourteenth* Day; going off partly by *Expectoration*, partly by *Sweat*: Then the Pulſe becomes more ſoft, and the Patient falls into an eaſy, refreſhing Sleep.

But when, on *critical Days*, the *Criſis* is imperfect, there is, indeed, a *Sweat*; but it neither eaſes the Patient, nor terminates the *Diſeaſe*. When it continues till the *twenty-firſt Day*, there is Reaſon to fear a dangerous Abſceſs in the Breaſt. It is therefore a good Sign when the Expectoration proceeds from the Bottom of the Lungs, bringing up a viſcid Matter, on the *fourth Day*, mixed with Blood, afterwards *yellow*, and ſometimes *purulent*. The ſooner the Expectoration happens, the greater the Hopes of Recovery: the later, the contrary.

A *Looſeneſs* is not ſafe; Urine, without a Sediment, is a ſuſpected Sign; and a *profuſe Sweat*, unleſs on critical Days, is ſtill worſe. On the *eleventh* and *twelfth* Days a Looſeneſs is not

not much to be feared, unleſs too great, for it ſometimes carries off purulent Matter. If a *bleeding* at the *Noſe* happens about the *fourth* Day, it is generally attended with a remarkable Alteration of the Diſeaſe.

Thoſe who die of an *Inflammation* of the Lungs, are ſuffocated; becauſe the Matter, adhering to the Veſicles and bronchial Ducts, cannot be coughed or hauked up. When the Lungs have been opened, they were found inflated; hard, like Liver; and the Veſſels being ſtuffed with a thick tenacious Blood, they have ſunk to the Bottom of the Water, being thrown in. Some have had their Lungs beſet with ſmall Abſceſſes and hard Tubercles, and the *Pleura*, adhering to the Lungs, inflamed and mortified. Others had polypous Concretions in the pulmonary Vein and the great Artery, and hindered the free Paſſage of the Blood through the Lungs, which produced an Inflammation.

As in all *inflammatory Fevers*, ſo in this, too hot a *Regimen* is to be ſhunned, both with reſpect to the Bed-cloaths and the Heat of the Room; nor muſt the Patient be expoſed to the cold Air, nor drink Things actually cold. Likewiſe all *ſtrong Sudorifics*, *Diuretics*, and *Cathartics* are hurtful. And if the Patient has three or four Stools, the Courſe of Nature muſt not be ſtopped. HOFFMAN.

The DIET ſhould be cooling, relaxing, ſlender, and diluting. ARBUTH. Moiſtening things taken warm are preferable to all others, as I have found by Experience: Hence, Barley or Oat-meal-gruel, ſweetened with Honey, is proper, as alſo ſweet Whey.

The *Indications of Cure* are, 1. To prevent the farther *Staſis* and Stagnation of the Blood. 2. To dilute and diſſolve the *Lentor* of the Blood in *Pleuritics*. 3. To mollify, eaſe, and relax the Spaſm, Pain, and copious Afflux, in order to put the impacted Blood again into Motion by the Help of the Appulſe of the arterial Blood. 4. To promote the Excretion of the viſcid bloody, and purulent Matter, adhering to the Bronchia of the Lungs, ſo that it may be brought up, and an Abſceſs prevented.

Take away *ten Ounces* of Blood, on the Side of the Part affected. SYD. If the Phyſician is called before the *third* Day, the Patient, lying on his Back, muſt loſe a large Quantity of Blood from a wide Orifice in a large Veſſel, and fetch deep Sighs, or cough, to promote its Celerity; and the Part affected ſhould be rubbed gently at the ſame Time. The Bleeding ſhould be continued till the Pain remits, or the Patient is ready to faint. It ſhould be repeated as often as the Symptoms return which it was intended to remove. The Abſence of the white inflammatory Pellicle from the Surface of the Blood, when cold, ſhews it is Time to leave it off. BOERH. This *Huxham* confirms by his

own Experience, and adds, that after the *fourth* Day, Bleeding is not safe. He likewise recommends *fomenting* the Part, which often eases the Pain, and terminates the Disease. But if it is obstinate, he recommends *slight Scarifications*; then *Cupping*, afterwards a *Blister* on the same Place, which has been successful when the usual Methods failed. An *emollient cooling Clyster* should immediately succeed Bleeding, especially if the Body is costive: And *nitrous Medicines*, with a cooling, emollient, diluting Regimen, should be forthwith entered upon. Thin Whey, a Decoction of Barley and Red Poppies, and Emulsions, will serve for Drink.

Pringle says, whenever the Spitting begins, the Bleeding must be omitted, or so moderated as to relieve the Breast without impairing the Strength and checking the Expectoration. Besides, *Blisters* not only shorten the Cure, but prevent the Loss of a great deal of Blood. For a large Blister laid to the Side affected, immediately after the first Bleeding, is a proper Remedy, because it resolves the Obstruction and removes the Fever. This applied to another Part, might increase the Disease. These Blisters may be as large as the Hand with the Fingers. If a Surgeon is not in the Way, it may be laid on first; but the Patient must lose Blood as soon as possible.

Though the Symptoms should vanish on blistering, it will be more secure to bleed again; unless a *profuse Sweat* comes on with Relief from Pain, and makes all other Remedies unnecessary. But if the Lungs are likewise inflamed, the Cure cannot be so speedy; for though the first Bleeding and a Blister should give Ease, yet a Repetition will be needful. Sometimes the Stitch returns and fixes on the other Side: But this may be treated as the first, with the same Success. PRINGLE.

1. ℞. *Aq. Papav. Rhœad.* [*vel Fœnicul.*] ℥iv. *Sal. Prunel.* ʒj. *Syr. Violar.* ℥j. *M. F. Haustus, sumendus statim a primâ Venæsectione.*

2. ℞. *Amygd. dulc. excorticat.* No. v. *Sem. Melon. Pepon. an.* ℥ss. *Sem. Papav. alb.* ʒiij. *Aq. Hordeat.* ℔iss. *Aq. Rosar.* ʒij. *cum. q. s. Sacchar. Cand. F. Emulsio, capiat* ℥iv. *quarta quaque Hora.*

3. ℞. *Decoct. Pectoral.* ℔ij. *Syr. Violar. & Pectoral. an* ℥iss. *M. F. Apozem. Capiat.* ℔. *ter in die.* SYDENH.

Or instead of this last, the following, from *Hoffman*, may be used:

4. ℞. *Herb. Veronic. Chærefol. Salv. an. Manip.* ij. *Rad. Liquorit.* ℥j. *Sem. Fœnicul.* ʒiij. Pour hot Water on these Ingre-

Ingredients, and drink four or five Cups of the Infusion pretty often, in the Manner of Tea.

He likewise advises the following Powder:

5. ℞. *Pulv. è Chel. Canc. comp.* ʒiij. *Rasur. Corn. C. Calc. Antimon. an.* ʒj. *Nitr. pur.* ʒfs. *Cinnab. Antimon. gr.* xv. *F. Pulvis, de quo cap.* ʒfs. *omni triborio, interposito Potu infusi Theiformis.*

If the *Pleurisy* is of a bad Kind, and Nature is a little sluggish, half a Grain of *Camphire* may be added to every Dose, which will check the Progress of the Inflammation. HOFF.

Or, the Patient may make Use of the Drink following:

6. ℞. *Aq. Hordeat.* ℥xl. *Nitri* ʒij. *Oxymel.* ℥iv. *M. Bibat* ℥ij. *calidè omni horâ quadrant.* BOERH.

Huxham lays a great Stress on *Camphire* and *Nitre*, joined with small Doses of the Paregoric Elixir; and if there is a vehement Pain, he thinks *Opiates* may be properly joined with them, as they have a great Power of relaxing the over tense Fibres, of moderating the too rapid Course of the Blood, and of promoting the Concoction of the morbific Matter. Hence, after the Use of *Opium*, there is generally a *copious Sediment* of the Urine.

Opiates may be given, but with Caution: For as long as the Pulse is hard, the Breathing difficult, or when Watchfulness is owing to the Fever, they do manifest Harm. But when the Fever is over, and Sleep is only prevented by a thin Defluxion on the Lungs, *Opium* will both give Rest and promote the Spitting. But if the Body keeps open, and the Head is affected by the Paregoric, Salt of Hartshorn is the best Corrector. PRINGLE.

Anodynes and *Opiates* have been advised to ease violent Pains; but take Care to avoid them when the Patient is old, when there is a Thickness of the Humours, and when the Inflammation lies deep. It is best to give nothing stronger than the Emulsions of White Poppy Seeds, or Syrup of Poppies. HOFFMAN.

7. ℞. *Ol. Amygd. dulc.* ʒij. *Syr. Violar. & Pectoral. an.* ℥j. *Sacchar. Cand. q. s. M. F. Eclegma; de quo sæpius lambat.* SYDENH.

Or this, to promote Expectoration:

8. ℞. *Ol. Amygd. dulc.* ʒfs. *Sperm. Cet.* ʒij. *Croc. gr.* x. *Syr. Violar. Sacchar. Cand. an.* ʒifs. *M. F. de quo crebrius quicquam deglutiendum.*

Ex-

Expectorants and *Linctus's* ought not to be given on the first Days, but when the Matter is concocted, moveable, and fit for Excretion. HOFFMAN.

To ease the Pain in the Side:

9. ℞. *Ol. Amygd. dulc. Lilior. & Unguent. ex Althæa an.* ℥j. *M. F. Linimentum, quo inungatur Latus affectum mane & serò, superimponendo Fol. Brassicæ.* SYDENHAM.

Or this, to ease the Pain and discuss the Inflammation:

10. ℞. *Pingued. Capon.* ℥j. *Camphor.* ʒs. *M. F. Linimentum calidè applicandum.*

It is necessary that the Body be kept open, and the Bowels free from Spasms, to which Purposes *emollient Clysters* are proper, with Oil of Sweet Almonds.

11. ℞. *Decocti Avenac. tenuior* ℔j. *Flor. Chamæmel. vulg. Manip.* j. *Coque & colatur. Adde Ol. Amygd. dulc.* ℥ij. *Sal. commun.* ʒij. *Nitri* ʒj. *M. F. Enema.* HOFFMAN.

In the *first Stage* of the *Pleurisy* or *Peripneumony*, Laxative Clysters and the cooler Diaphoretics are proper; but all Cathartics and warm Sudorifics do Harm. The Time for attempting the *Diaphoresis* is when the Person finds Ease by the Blister: But whenever the Spitting begins, the Diaphoretics must either be omitted or joined to Expectorants; whereof the chief is *Oxymel of Squills*; or in great Heat or Drought some more pleasant Acid. But in *Lowness*, after repeated Bleedings, give *Salt of Hartshorn* joined to some Oil: This will raise the Pulse and promote Expectoration when it flags.

If, notwithstanding the Discharge, the Breast continues to labour, Bleeding is still requisite: For the Lungs are not to be overpowered by the Omission of Bleeding: Nor is the Suppression of the Spitting to be hazarded by Bleeding too freely. But *with regard to Blisters* there need be little Caution, as they are always seasonable, to raise, relieve the Breast, and to promote Expectoration.

In the Course of Expectoration, a Vomit will sometimes be useful in discharging the Load of viscid Phlegm. If the Phlegm is tough, or the Patient costive, and Opiates are given, they must be joined with Squills.

When the *Pleurisy* ends in a *Suppuration* or *Abscess*, the Signs are, a slight, vague *Shivering*, which often returns without any evident Cause; a Remission of the Pain, while the Difficulty of Breathing remains; a Redness of the Cheeks and Lips; Thirst; a *Febricula*, or slight Fever, especially in the Evening; a weak, soft Pulse.

When

When the *Abſceſs* is actually formed, there is an obſtinate, dry Cough, which increaſes after Feeding, or Motion. The Breathing is difficult, ſmall, thick, ſhort, and wheezing; worſe after Eating and Motion. The Patient can only lie on the Side affected: A ſlow, periodical Fever, which is exaſperated with Stirring and Eating; a decayed Appetite, great Thirſt, nocturnal Sweats, Paleneſs, Leanneſs, and exceſſive Weakneſs.

This either ends in a Conſumption, or the Matter falls into the Cavity of the *Thorax*, and ſo becomes an *Empyema*; which ſee.

Sometimes the Matter of the *Abſceſs* is tranſlated to ſome other Part, as the Brain, Liver, or Spleen, which is fatal. Sometimes it occaſions an *Abſceſs* behind the Ears, in the Legs, or Hypochondria. BOERHAAVE.

A Cough is almoſt a perpetual Attendant on a Pleuriſy; and ſince Expectoration is of the utmoſt Conſequence, and frequently terminates the Diſeaſe, it behoves every ſkilful Phyſician, in the Beginning of a Pleuriſy, ever to obſerve whether the Cough be attended with a Spitting, and of what Kind it is: For a dry Pleuriſy is by all condemned as the moſt dangerous, troubleſome to treat, and difficult to bring to a Concoction or Criſis; it either carrying off the Patient with great Rapidity, or continuing for a very conſiderable Time: Even a Spitting intermixed with Blood, in this Caſe, is far better than where there is no Expectoration at all.

It is an Obſervation of the learned *Triller*, that a Pleuriſy which attacks the Right Side, is not ſo dangerous, ſtubborn, or inveterate, as when the Left Side is affected, which proves often fatal on the third or fourth Day, eſpecially to Perſons who are very hard Drinkers.

An original Pleuriſy generally requires copious and repeated Bleeding: The ſymptomatical, or that which happens in Conſequence of other epidemic Diſeaſes, will not bear it ſo well, at leaſt no Repititions of it.

Pleuriſies are ſeldom more ſevere, or more ſuddenly fatal, than when they happen upon exceſſive and ſudden Drinking of cold Liquors when the Body has been much heated. The Blood of a healthy Perſon, drawn into a Veſſel of cold Water, inſtantly concretes into Threads of an almoſt ſolid Conſiſtence. Now when Plenty of cold Drink is ſwallowed down the Œſophagus, which deſcends in its Courſe very near the Trunks of the intercoſtal Arteries, it becomes filled or diſtended with it; the whole Stomach, in like Manner, being charged with the cold Drink, inſtantly imparts the unuſual Coldneſs thereof to the adjacent Diaphragm, Liver, Spleen, &c. The Trunk of the

aſcending

aſcending Cava, and the large right Sinus of the Heart, incumbent on the thin tendinous Part of the Diaphragm, are likewiſe affected, and by diſpoſing the Blood there collected to a Concretion, impede its proper Paſſage through the Lungs.

The Breathing is greatly injured, becauſe, at the Time of Inſpiration, the Ribs muſt, of Neceſſity, be drawn from each other; and the inflamed and tenſe Parts be conſequently ſtretched and extended, with a great Increaſe of the Pain. Upon this Account, ſuch miſerable Patients hardly breathe Air ſufficient to dilate the Lungs; whereby the right Ventricle of the Heart becomes unable to empty itſelf ſo freely as it ought to do. The Blood, therefore, returning from the Head by the jugular Veins, cannot now find any Admittance into the right Sinus and Auricle, already full; whence the Brain is compreſſed by the turgid Veſſels, and the Patient becomes dull, ſtupid, and leſs ſenſible of Pain; and whilſt the Lungs are gradually more and more overcharged with Blood, he ſoon expires, ſuffocated. And it is very worthy of Remark, that Pleuritics periſh in the Height of the Diſtemper, not from the Inflammation of the Pleura, nor of the Parts contiguous to, or incumbent on, the Ribs; but are ſuffocated by a Repletion or Oppilation of the Lungs, for want of a due Reſpiration.

It is to be obſerved, that when a Pleuriſy has continued three or four Days, without having had any neceſſary Aſſiſtance, it ſeldom or never is cured by any innocent or mild Reſolution: For then the Violence of the Diſeaſe uſually gives Riſe to Maladies in other Parts; and more eſpecially in the Lungs.

Triller has very juſtly obſerved, that Pleuritic Patients generally eſcape by the Help of Nature, often even without Bleeding, provided a copious Flux of florid or purple Blood from the Noſe happens between the *firſt and the fifth Day*. And *Hippocrates* pronounces, that *Urine of a ſlight reddiſh Colour, and a moderate Sediment, denotes a ſure and ſafe Criſis in Pleuriſies*. If ſuch a Urine flows plentifully, and depoſits ſuch a Sediment, with Relief of all the Symptoms, we are then ſure the morbific Matter is diſcharging itſelf; and we have more eſpecially Hopes, that the Diſeaſe will terminate that Way, if this happens in the Beginning, before any of the Humours become vitiated by a long Continuance of the Diſtemper: For, if this Urine is voided towards the Cloſe of the Diſeaſe, it will very rarely be removed by that Diſcharge only.

If the Pain invades the Back, Shoulders, or Arm, and evidently abates in the Pleuritic Side, it is a very happy Sign; ſuch Patients generally recovering, which is very remarkable. *Theſe Tranſlations happen oftener upon the ſixth Day of the Diſeaſe*

This

This Metaſtaſis, however, does not appear to cure the Diſeaſe, but is rather a Forerunner of a ſalutary Criſis.

A white, concreted, or Pus-like Expectoration, has been often known to cure a Pleuriſy.

Expectorations of a yellow Colour, intermixed with Blood, are ſalutary. *Hippocrates* has recorded thoſe *Pleuriſies to be of the mildeſt Kind, in which the Spitting is ſomewhat bloody.* In this Caſe, however, Bleeding is to be forbidden, which would ſuppreſs this Expectoration, and kill the Patient.

In a violent Pleuriſy, although by a happy Treatment, the Matter of the Diſtemper may be diſſolved, and rendered fluxile; it hardly ever happens, that this Matter can be again aſſimilated with the healthy Juices, ſo as to circulate with them freely, and without Injury to the vaſcular Syſtem, which it almoſt conſtantly ſtimulates to ſuch a Degree, as to force it to throw the ſame off by ſome Out-let or another, in a ſenſible Diſcharge from the Body. This Caution is very neceſſary, leſt any one ſhould heſitate to order Bleeding in the Beginning of a Pleuriſy, thinking it might hinder the ſalutary Endeavours of Nature to expel the morbid Matter.

It ſometimes happens, in a Pleuriſy, that the Breaſt can, by no Means, be dilated or moved, on Account of the Violence of the Pain, whence the Lungs tranſmit but very little Blood; for which Reaſon, the large Veins are very full and turgid, but the Aorta, receiving only a little Blood, does not preſs forward that which is contained in the Veins with any great Force; ſo that, upon opening a Vein, there often iſſues out but a ſmall Quantity of Blood: But as ſoon as the Patient expands them by Sighing, or ſhocks them by Coughing, the Blood iſſues forth with Impetuoſity. *Tulpius* therefore adviſes Phyſicians, in ſuch Caſes, to perſuade their Patients to cough: But, as the Pain is often ſo ſevere, that the leaſt Dilatation of the Breaſt throws them into Convulſions, it is not an eaſy Matter to prevail on them to do it. Under ſuch Circumſtances, it will be expedient to give ſome Sternutatory, or a Spoonful of hot Vinegar, whereby an involuntary Cough may be excited, which may ſuddenly remove the Pain, or greatly abate it at leaſt.

We ſhould be cautious not to bleed to Fainting, leſt a Peripneumony ſhould follow; for when the Heart, in a Deliquium, ceaſes to move, the Blood in the right Sinus, Auricle, and Ventricle, often ſtagnates for ſome little Time, and being, in this inflammatory Malady, greatly inclined to inſpiſſate and concrete, it will, in ſome Degree, enter before the Patient can be recovered from his fainting Fit; and may therefore adhere, and be unable to paſs the ſmaller Veſſels of the Lungs through which

which it should circulate, and so be productive of a Peripneumony, which would be of much more dangerous Consequence than the Pleurisy itself.

Triller gives a Case, to prove how effectual Bleeding may be, even when the Patient is extremely weak, and all the Symptoms are, notwithstanding, aggravated to a Degree of Violence. In a robust Youth, under a most severe Pleurisy, after two plentiful Bleedings, the Disease seemed to change for the better; but on the fifth Day, the Symptoms returned with great Violence, so that, in spite of Clysters and Vesicatories, the Patient seemed to be in the most imminent Danger. A large Orifice was made in the Veins of both Feet, now grown so cold, that though they were fomented with warm Water, not a Drop of Blood came; upon which Water was continued to be poured upon them, so hot as to fetch off the Cuticle, and then the Veins bled plentifully enough, and so effectually, that the Patient, almost half expiring, revived, and was most happily cured.

Sydenham bled his pleuritic Patients, as soon as he was called to them, from the Arm of the affected Side; but when he afterwards repeated the Venesection, he makes no mention of the Part from which the Blood was taken. *Hildanus* observes, that he seldom or never found the desired Success from Bleeding in the Arm opposite to the Pleurisy; and *Triller* confirms this also, as to the first Bleeding; for the second, he rather prefers the Foot of the same Side; and then in the opposite Foot, if there should be a Necessity for a third or fourth Bleeding; but he very justly remarks, that the first Bleeding should be of all the most copious.

In this Case, a Solution of *Venice* Soap, in equal Parts of warm Water and new Milk, has been found a comfortable Fomentation; or half an Ounce of Soap to a Pint of the *Emollient Decoction*, in which Flannels were dipped and laid upon the Side, and hot Tiles placed over to keep the Fomentation from cooling too soon. In the Night-time, that the Fomentations may not be troublesome, the Side may be first rubbed with *Ung. de Althæa*, and then covered with a Melilot Plaister. A simple Decoction of Barley, with Oxymel and Nitre, is often sufficient here, since this includes all the Qualities necessary towards a Cure; for it dilutes by being watery, relaxes and eases by the intermixed mealy Mucilage, while the Honey and Vinegar very well dissolve the inflammatory Size; as also does the Nitre, and abates the Heat.

These Patients should never be kept too hot, but be taken out of Bed a few Hours every Day, if their Strength will bear

bear it; nor ſhould they be over-loaded with Bed-cloaths. Copious Bleedings, and other cooling Remedies, will avail but little without this Precaution.

Laſtly, great Prudence is neceſſary in regulating the Diet of recovering Partients; for too ſudden a Repletion would endanger a fatal Relapſe. VAN SWIETEN.

Of the BASTARD PLEURISY.

HOFFMAN is of Opinion, that the Seat of every genuine Pleuriſy is in the Lungs, as appears from the opening of thoſe that die of this Diſeaſe. In the *Hoſpital of the Holy Ghoſt, at Rome*, there were three Hundred Inſtances of this Truth; for they had all one Lobe of the Lungs affected, which was full of Matter, without any ſenſible Diſorder of the *Pleura*.

Therefore, if the Inflammation occupies the external Parts only, it is a BASTARD PLEURISY: If the external Surface of the Lungs, like an *Eryſipelas*, it is a *genuine Pleuriſy*. *Riverius* likewiſe obſerves, that ſome affirm that the Lungs are affected in every true Pleuriſy, which is confirmed by Authority, Reaſon, and Experience: For *Hippocrates* ſays, if both Lobes of the Lungs are inflamed, it is a *Peripneumony*; if one, a *Pleuriſy*. And we all know, that the general Signs of a Pleuriſy are alſo the Signs of a Peripneumony, ſuch as a Cough, a continual Fever, Difficulty of Breathing, and bloody Spittle. Hence it is reaſonable to conclude, that the Diſeaſes are of the ſame Nature; add to theſe, that the *Prognoſtics* and *Cure* of both Diſeaſes are the ſame; as alſo the Bodies of Pleuritics having been opened, the Lungs have been always inflamed. But he thinks that when any have died of this Diſeaſe, the Inflammation has crept to the Lungs; and that, in ſome, the *Pleura* only had been corrupted. And *Huxham* thinks, that becauſe *Pleuriſies* are apt to bring on more or leſs of a Peripneumony, it is a Cauſe why we meet with many more Pleuritic Fevers, accompanied with peripneumonic Symptoms, than true and exquiſite Pleuriſies. When a ſevere Pain in the Breaſt is attended with an acute Fever, a Load at the Breaſt, Cough, Difficulty of Breathing, Expectoration or Spitting of Blood, it is very properly denominated a PLEURO-PERIPNEUMONY. Thus much in general.

A BASTARD PLEURISY is attended with a very acute and pricking Pain in the Side, which is exaſperated by the Touch. Lying on the affected Side is difficult; there is a dry Cough, without

without the Ejection of purulent or Bloody Matter, which, if ſtrong, encreaſes the Pain. There is likewiſe a Fever, with a hardiſh, depreſſed, and frequent Pulſe.

The Cauſe does not ſeem to be in the Blood, but rather in the *Staſis* of an acrid Serum, at the Connection of the Ends of the fine azygous Arteries and Veins; as alſo of the lymphatic Veſſels of the *Pleura*, and likewiſe in the *Perioſteum* of the Ribs, where the Senſe is more acute.

Hence it is nothing elſe but a Kind of *Rheumatiſm*, and is common to thoſe who are now and then troubled with Catarrhs, rheumatic and arthritic Pains, or a *Hemicrania*; eſpecially if they come out of a hot Air into a cold, or the contrary, particularly in the Evening.

This does not require Bleeding, unleſs there is a remarkable *Plethora*; but a *Diaphoreſis*, and a more free Perſpiration. On the ſeventh Day it generally diſappears, and is without Danger. HOFFMAN.

Lanciſius adviſes to bleed plentifully in the Arm, and to ſcarify the Part affected. After this, two Cupping-glaſſes are to be applied thereto, which will cure the Diſeaſe as if by Enchantment.

In the Winter Seaſon, that is, in *January*, many fell ill of a *ſpurious Pleuriſy*, which was attended with a high Fever, an acute Pain in the Side, a dry Cough, exciting a moſt intolerable Pain, and Want of Sleep. They were bled in the Arm, and a buff Coat was generally on the Blood. They drank freely of thin Water-gruel, with Sage boiled in it. They were under a temperate Regimen, and took a Powder conſiſting of Nitre, diaphoretic Antimony, and Crabs-eyes, ſometimes mixed with Vinegar and a few Ounces of *Carduus Benedictus* Water. Externally, hot Linen Cloths were laid to the Part affected. Thus the Diſeaſe diſappeared on the ſeventh, eleventh, or fourteenth Day, with a large Sweat. Some young Patients, who did not loſe Blood enough, had a ſalutary Bleeding at the Noſe on the ſeventh or ninth Day; and the Pulſe was rather depreſſed than quick through the whole Courſe of the Diſeaſe: If the Fever continued to the tenth or fourteenth Day, as it did in ſome, they had an Eruption of red miliary Puſtules, beſet with white watery Veſicles, in all Parts of the Body. However, there was nothing given but *bezoardic Powders* and *Nitre*, with a large tepid Draught of the Decoction of Barley, and thin Water-gruel. Only one died with a Pleuriſy and a ſpotted Fever.

Hoffman obſerves on this Hiſtory, that thoſe are apt to fall into a *Baſtard Pleuriſy*, who are much expoſed to a moiſt, cold autumnal or wintery Air: For there are no Diſeaſes, or inflammatory

flammatory Fevers ſo ſoon generated by the *Intemperies*, Inequality, and Change of the Air, as thoſe of the Breaſt. When the Summer has been hot and dry, and the Weather has ſuddenly changed to cold, with a northerly Wind, not only catarrhal Defluxions have enſued, but Rheumatiſms and Pleuriſies, with bloody Spittle and violent Pains in the Side, have been very frequent. For the Air, from continual Inſpiration, immediately affects the Lungs internally, and externally the Thorax and Ribs, which are beſet with thin Muſcles, membranous Nerves and Veſſels; for which Reaſon, ſpaſtic Criſpatures are readily induced, and the free Circulation of the Humours ſtopped.

The *Phyſician* was quite in the right to direct Bleeding in the above ſpurious Pleuriſy, on Account of the Plenty of groſs Blood which is generated in the Winter; though it is not ſo when the Body is more repleniſhed with Serum. Beſides, Ointments, nor oleous Liniments, nor even moiſt Applications, are very proper in the *Baſtard Pleuriſy*; becauſe they hinder Perſpiration, which is ſo neceſſary to diſcuſs the ſtagnating Humours, and to cauſe them to fly off.

The beſt Way is to keep the Part affected in a temperate and equal Heat, in a warm Bed; eſpecially as the Skin of every Patient, as in the Gout and *Eryſipelas*, cannot bear Topics.

Laſt of all, we are not to confound the Red miliary Puſtules with the White; for the former are by far more friendly to Nature, and do not proceed from a putreſcent and vapid Serum, but rather from that which is ſharp and ſcorbutic; for which Reaſon, if they are cautiouſly and carefully treated, there is no great Danger attending them.

Riverius and other Authors agree, that in the Baſtard Pleuriſy the Patients cannot lie on the affected Side; the contrary to which happens in the true Pleuriſy.

Of a Peripneumony.

THOUGH there are ſeveral Obſervations in the *preceding Section* which relate to this Diſeaſe, yet as it is common either as an original Malady, or the Conſequent of ſome other, as *Huxham* obſerves, it cannot be too carefully ſtudied.

There are, as that Author obſerves, ſeveral Kinds of this Diſeaſe. For it may ariſe from a violent *Inflammation of the Lungs*, by a very ſizy, denſe Blood obſtructing very many of the Pulmonic and Bronchial Arteries; or from an Obſtruction of the

Lungs by a heavy, viſcid, pituitous Matter. This is called a *Spurious*, or *Baſtard Peripneumony*; or from a thin, acrid Defluxion on the Lungs, and then it is a *Catarrhal Peripneumony*.

The *Symptoms common to all*, are a Load at the Breaſt, a ſhort difficult Breathing, and more or leſs of a Fever. But in a *true Peripneumony*, as *Hoffman* obſerves, there is a more tenſive Pain than in the Pleuriſy; beſides, it is rather more obtuſe and preſſing than acute, and ſhoots as far as the Back and *Scapulæ*. But the Difficulty of Breathing is greater, as well as the Anxiety and Expectoration, whereby a variegated Spittle is brought up, which lay as it were very deep; for in this Diſeaſe the Veſſels of the Lungs themſelves, whereby the Blood circulates from one Ventricle of the Heart to the other, are affected; being ſtuffed and obſtructed with a thick Blood, which is apt to grow more viſcid and ſolid. Wherefore it is the more dangerous and fatal, eſpecially if it attacks old Perſons, and Bleeding is not timely adminiſtred. *Boerhaave* ſays, the Pulſe is ſoft, ſlender, and in every Senſe unequal; and *Huxham*, that if the Pulſe is hardly felt before Bleeding, it will afterwards beat very ſtrongly.

In the *Cure*, great Regard muſt be had to the *different Stages* of this Diſeaſe, and the *different Symptoms* that attend it. *Bleeding* is indiſpenſibly neceſſary at the Beginning of a ſevere Inflammation of the Lungs; but if after the ſecond or third Bleeding the Patient begins to ſpit a *well-concocted Matter*, freely tinged with Blood, you muſt forbear to repeat it, otherwiſe the Patient will be weakened, and a fatal Suppreſſion of the Expectoration will enſue. But if he brings up a conſiderable Quantity of *florid, thin, ſpumous Blood* by Spitting, then bleed again; quiet the Cough with *Diacodium*, and give *proper Acids* pretty freely, with ſoft, cooling Incraſſants. If a *thin, gleety, dark-coloured* Matter is expectorated, it is generally a Mark of greater Malignity, and that the Blood is in a putrifying, diſſolving State, and will not bear a large Loſs of Blood.

Generally the more violent the *Rigor* or *Horror* is at the Attack, the more violent the ſucceeding Fever will be, which will in ſome Meaſure guide us in drawing of Blood. If the Symptoms are not relieved by the firſt Bleeding, after eight, ten, or twelve Hours, let it be repeated; or ſooner, if they become aggravated. If the Fever, Anxiety, Oppreſſion, and Difficulty of Breathing increaſe, bleed again; eſpecially if it appears very thick and denſe, or covered over with a thick yellowiſh Coat or Buff. However, it does not appear ſometimes till the ſecond or third Bleeding, though the Symptoms indicate a very high Inflammation. This often happens from the Blood not ſpouting out in a full

a full Stream. This *Appearance of the Blood*, with a *firm ſtrong Pulſe*, will warrant the taking away more, till the Breathing becomes free and eaſy.

If the *Craſſamentum* is of a very looſe Texture, and not covered with a Buff Coat, and the Pulſe on Bleeding ſinks, flutters, or grows more weak and ſmall, it is Time to deſiſt. A blueiſh Film on the Blood, with a Kind of a ſoft, greeniſh Jelly underneath, while the *Cruor* itſelf is livid, looſe, and ſoft, with a turbid, reddiſh, or green Serum, is a Sign of a very lax *Craſis* of the Blood and great Acrimony, which will not bear great Quantities to be drawn off. If the Blood is very florid, thin, and looſe, with little or no Serum, after ſtanding for ſome Time, it generally argues a conſiderable Advance to a putrid and very acrid State.

A ſtrong, throbbing, thick Pulſe, always indicates farther Bleeding, at leaſt till the Patient breathes more eaſily, or a free Expectoration of laudable Matter is obtained. It often happens that the Pulſe at the very Beginning ſeems obſcure and oppreſſed, irregular, ſluggiſh, and ſometimes intermitting, with Weakneſs and Oppreſſion. But this does not ariſe from the Defect, but from the too great Quantity of Blood; for the Blood Veſſels being over-loaded and diſtended, cannot act with ſufficient Vigour. This is ſucceeded with a dreadful Train of Symptoms, and even Death itſelf, if not prevented with ſufficient Bleeding.

In ſome *very violent Peripneumonies*, an immediate and exceſſive Weakneſs comes on, with an inexpreſſible Anxiety and Oppreſſion of the Breaſt; a very ſmall, weak, trembling Pulſe, Coldneſs of the Extremities, with clammy, coldiſh, partial Sweats; the Eyes ſtaring, fixed, and inflamed; the Face bloated, and almoſt livid. This has ſoon been followed with a Stupor, *Delirium*, and ſometimes with a compleat *Paraplegia*.

Some Kinds of Peripneumonies will not bear large Bleeding, eſpecially the *Epidemic* or *Malignant*. The Pulſe and Strength of theſe Patients have ſunk to a ſurprizing Degree, and the Diſeaſe has turned into a ſort of a nervous Fever, with great Tremors, *Subſultus Tendinum*, profuſe Sweats, or an atrabilious *Diarrhœa*, with a black Tongue, *Coma* or *Delirium*; though at the Beginning the Pulſe ſeemed to be full and throbbing, and the Pain, Cough, and Oppreſſion ſo very urgent as to indicate Bleeding pretty ſtrongly. In theſe Caſes the Blood was ſeldom buffy to any conſiderable degree, but commonly very florid, of a very looſe and ſoft Conſiſtence, or very dark coloured, and coated with a thin and blueiſh or greeniſh Film, under which was a ſoft, greeniſh Jelly; and a dark, livid Cruor at the Bottom.

Sometimes the Coat was much thicker and more tough, but of a pale red Colour, resembling the *Cornelian* Stone, or a dilute Gelly of Red Currants. When the Blood is thus dissolved, abstain from farther Bleeding, especially if the Pulse or Patient becomes more languid after it, though the Oppression, Load, or even Pain, may seem to require it.

When the *fizy Coat on the Blood* is excessively tough, and extremely yellow, or of a pale red Colour, it threatens Danger; for the inflammatory Lentor will scarcely mix with any Diluents. Sometimes, after repeated Bleeding, the *Crassamentum* has scarce been a sixth Part of the Volume of the Blood, and yet as solid as a Piece of Flesh. This is generally mortal.

When the peripneumonic Symptoms continue for four or five Days, or more, we may justly fear an Abscess or a Mortification, and little Advantage is to be expected from farther bleeding. But if the Pain returns with Violence, after having ceased a considerable Time, it is a Sign that a new Inflammation is forming, which indicates bleeding as much as the primary, but not in the same Degree. The Strength of the Patient and Pulse, the Violence of the Pain and Difficulty of Respiration, are, in a great Measure, to determine the Quantity. When the Pulse and Strength seem to require bleeding, Cupping on the Shoulders will relieve the Breast and Head. Likewise the Use of *Blisters*, *Issues*, and *Setons*, are very serviceable in Inflammations of the Lungs. HUXHAM.

Laying a Blister on the Part affected is the proper Cure of a Pleurisy; but a *Peripneumony* is naturally more dangerous; and the more so, as the *Epispastic* cannot operate so directly on the Lungs as the *Pleura*. But even in this Case, Blistering is most to be relied on after bleeding. You may first blister the Back, and afterwards one or both Sides. Epispastics tend to relieve the Breast, not only when applied to the Chest, but also to the Extremities; and promote Expectoration. Whereas Bleeding must be cautiously, if at all, used after the Spitting appears. PRINGLE.

The *Fever* and the *Inflammation* require a *cool, diluting Regimen*, and nitrous and relaxing Medicines; together with a moderately cool, free Air, and Quiet both of Body and Mind. A close Room is very incommodious; if it cannot be avoided, it should be prudently aired. There is nothing more proper than thin Whey, a Barley Ptisan with Liquorice, Figs, *&c.* the *Infusion of pectoral Herbs*, such as Ground-Ivy, Maiden-Hair, Colt's-Foot, Hyssop, *&c.* These should be gently acidulated with Juice of *Seville* Orange or Lemon. Honey will render them more detergent. Any or all these Things may be drank warm,

warm, in Turns, by frequent ſmall Draughts, ſipping them, as it were, perpetually. Theſe relaxing, emollient Drinks, and Vapours ariſing from them, are in a more eſſential Manner neceſſary, when the Expectoration is very difficult and tough. When it is ſuddenly ſuppreſſed, and the Difficulty of Breathing greatly augmented, an Emetic of *Oxymel* of *Squills* will be proper, if the Violence of the Fever is abated: But very little ſhould be drank after it to promote Vomiting.

When ſoft, demulcent, lubricating Medicines are indicated, give a *Linctus* made with *Sperma Ceti*, *Ol. Amygdal. dulc.* or cold drawn *Linſeed Oil*, with *Syrup. Althææ*, *Papav. errat. Diacodium*, or the like. When Oils diſagree, a Mucilage of Quince Seeds, or Linſeed, with Rob of Elder Berries or Black Currants, or their Syrup, or that of Poppies, is very uſeful and grateful. *Nitre* may be agreeably given with either of theſe; and perhaps Camphire would not be ſo nauſeous. When any of theſe Medicines bring on any conſiderable Purging, the Expectoration will be ſuppreſſed, and the Patient's Life in Danger.

When *much ſincere, florid, or frothy Blood is ſpit up*, take away as much Blood immediately as the Patient's Strength will bear. If the *Hæmoptoë* continues, bleeding in the *Saphæna* will be found of the utmoſt Service. Then direct cooling Emulſions, nitrous, demulcent, and mucilaginous Medicines. Vegetable and even Mineral Acids, if the Spitting of Blood is very conſiderable. The Drink may be a Decoction of Red Poppies, Colt's-Foot, and Figs, acidulated with Elixir of Vitriol. The *Cough* may be appeaſed with *Diacodium*, or a ſoft *Linctus*. But ſtrong Aſtringents and large Doſes of Opiates are bad.

In a Catarrhal Peripneumony, the Matter expectorated is extremely thin and crude, and the Defluxion ſo very acrid as to excoriate the Wind-pipe, cauſing an inceſſant and very violent Cough. Here, a great Loſs of Blood is not neceſſary; but ſome ſhould be drawn in the Beginning, to abate the inflammatory Diſpoſition. *Bliſters* ſhould be applied early, and Purgatives are proper to carry off the ſerous *Collavies*. A *demulcent, pectoral Ptiſan* is proper to temperate the Acrimony of the Humours. It ſhould be taken warm with mild Diaphoretics. *Coffee* is a uſeful Drink. Direct *Diacodium*, or *Elixir Paregoricum*, to moderate the Cough, in ſmall Doſes often repeated. *Sperma Ceti*, *Olibanum*, *Myrrh*, and *Camphire*, tend to incraſſate the thin, catarrhal Humour, and abate the Irritation.

In the Putrid Peripneumony the Expectoration is *livid*, *gleety*, and *ſanious*, frequently reſembling the *Lees of Red Wine*; ſometimes *more black*, and ſometimes *very fetid*. This is often

the Caſe of the *highly ſcorbutic*; particularly *Sailors*, after a long Voyage. Blood taken from theſe, appears to be in a diſſolving putreſcent State. The *Craſſamentum* is looſe and tender, the *Serum* turbid and reddiſh; the *Tongue* is black; the *Teeth* furred with a dark thick Sordes; the *Breath* offenſive; the *Urine* high-coloured or blackiſh. Black Spots, or a Dyſentery, frequently appear on the fifth, ſixth, or ſeventh Day. The Pulſe and Strength ſink after Bleeding: Sometimes a vaſt Anxiety, Fainting, a cold Sweat, a thready intermitting Pulſe ſoon after. This has ſometimes happened in Pleuro-Peripneumonies, where the Pain at the Side was violent, the Load at the Breaſt great, and the Cough conſiderable.

This will never bear a *ſecond Bleeding* to Advantage, *ſeldom the firſt*, unleſs there is a conſiderable Degree of *Firmneſs* and *Tenſion in the Pulſe*. When there is Reaſon to be diffident, order Scarifications and Cupping.

In this Diſeaſe give a *Decoction of Figs*, *Colt's-foot*, and *Red Poppies*, well acidulated firſt with Juice of *Seville Orange*, or *Lemon*, and afterwards with *Gas Sulphuris*, or *Elixir Vitrioli*. *Nitre*, *Olibanum*, *Myrrh*, Flowers of Sulphur, and Bole may be adminiſtred, with *Conſerv. Lujulæ*, Rob of Elder, Currants, Mucilage of Quince Seeds, and *Syrup. de Rubeo Idæo*: *Camphorated Vinegar*, with Syrup of Elder or Raſberries, is an excellent Medicine. A Spoonful or two of theſe latter ſhould be given ever and anon. Sound Cyder and Wine and Water, with *Seville* Orange or Lemon Juice, drank warm, promote Expectoration when deficient. *Tincture of Roſes*, with Red Poppy Flowers, has moderated an inordinate Defluxion of *thin*, *bloody Ichor*. However, *Oxymel of Squills*, and ſtrong Cinnamon Water, are frequently neceſſary to pump up the Ichor, when a great Rattling in the Throat, and Difficulty of Breathing, indicate a vaſt Quantity of it in the Lungs. And yet the Violence of the Cough may be often appeaſed by *Elixir Aſthmaticum* or *Diacodium*. The Patient is to be ſupported with Sago, Panada, Hartſhorn Jelly, roaſted Apples, Cream of Barley, or thick Gruel, with *a little Wine* and Juice of Lemons, giving a little at a Time, and often. Strawberries, Raſberries, Currants, Cherries, may ſometimes be indulged.

At the Cloſe, the Whole depends on a well-regulated Diet. A Toaſt, with diluted Red Port Wine, mulled with *Seville* Orange-Peel, Mace or Cinnamon, and well acidulated, may be very uſeful. *Bliſters* are ſeldom beneficial in this Caſe, but *often miſchievous*.

A very

A very thin yellow Spitting, either ſhows that nothing but the thinneſt Part of the Blood is ſtrained through the Arteries of the Lungs; or that the whole Maſs of Blood begins to diſſolve, its bilious Principles highly exalted, and that all tends to a general Putrefaction. It is commonly attended with a violent Cough, and Expectoration is performed with exceeding great Difficulty. Many Times it is ſucceeded by an *Hæmoptoë* from the Rupture of the Veſſels; particularly when the Tongue appears very red, dry, ſmooth, and ſhining, with a kind of *livid Bladders* at the Top.

The *concocted Matter* of inflammatory Obſtructions of the Lungs is partly ſpit off, and partly carried off by thick, turbid Urine in large Quantities, depoſiting much reddiſh or yellow-coloured Sediment; and ſometimes partly by bilious Stools. Nothing promotes this Urine, and theſe Stools, more effectually than laxative Clyſters. Sometimes the morbid Matter is critically tranſlated to the Legs, to the great Relief of the Breaſt; and therefore, in ſevere Pulmonic Diſorders, a Derivation of the Humours to the Legs may be attempted by tepid Bathing and Bliſters. The Diſcharge from the ulcerated Bliſters muſt not be ſuddenly ſuppreſſed; for then the Difficulty of Breathing and Cough will return; or a very great Purging, or profuſe Sweats will ſucceed. HUXHAM.

If the Patient is not *relieved*, or *dies* in *eight Days*, the Inflammation will end in a *Suppuration*, and an *Abſceſs* of the Lungs, and ſometimes in ſome other Part of the Body: The Symptoms of which are an obſtinate dry Cough, which Motion and taking of Food will increaſe. The eaſieſt Poſture in lying will be on the affected Side; there will be a *ſlow Fever*, with Chillneſs and Shivering at uncertain Periods; Exacerbations after *Motion*, or a *Repaſt*; Thirſt, Night Sweats, a frothy Urine, Paleneſs, Leanneſs, Weakneſs. In this Caſe, *Bleeding* muſt be forborne; the *Diet* muſt be mild, ſoft, incraſſating, and more plentiful. Tepid Vapours ſhould be taken into the Lungs, of Decoctions of proper Ingredients.

When by the Symptoms and Time the Impoſthume may be judged to be ripe, the Vapour of Vinegar itſelf, and any thing which creates a Cough, as *Oxymel*, Exerciſe and Concuſſion, are proper. The ſooner it is broke, the leſs Danger to the Lungs.

In this State, which is not abſolutely deſperate, the Aliment ought to be Milk; and the Drink, Milk and Barley-water, with *gentle Anodynes*, that the Patient may have ſome Reſt. If the Inflammation ends in a *Gangrene*, the Caſe is deſperate; if in a *Schirrus*, incurable.

Of the Bastard Peripneumony.

AT the Beginning of the *Fever* the Patient is hot and cold by Turns, is *giddy* upon the leaſt Motion, and complains of a rending Pain of the Head whenever he coughs; he *vomits* up every thing that he drinks; the *Urine* is turbid and intenſely red; the Cheeks and Eyes look red and inflamed; his *Breathing* is thick and ſhort; the whole *Thorax* is full of Pain, and the Straitneſs of his Lungs, as often as he coughs, is perceived by the By-ſtanders: Whence the free Courſe of the Blood is prevented, which creates a Stoppage of the Circulation, and *takes away all the Symptoms of a Fever*, eſpecially in thoſe of a full Habit of Body; this may alſo happen from the Blood's being overloaded with a great Quantity of pituitous Matter, which oppreſſes it ſo as to prevent a *febrile Ebullition*.

It ſometimes appears at the Beginning of the *Winter*, but oftener between that and the *Spring*. The Blood is like that of *pleuritic Perſons*. Sydenh.

This *Diſeaſe* ſometimes ſteals upon the Patient unawares, with a ſlight Wearineſs, a Weakneſs, a general Proſtration of the Faculties of the Mind, thick and ſhort Breathing, beginning with an Oppreſſion of the Breaſt. The Commotions it excites are ſo ſmall, that the Heat and Fever are ſcarce ſufficient to make the Patient ſenſible of his Danger. Afterward, ſlight Shiverings, which come on by Fits, and the Attacks of a gentle Fever, appear: Whence the Difficulty of Breathing, and Weakneſs ſuddenly increaſing, bring on Death; of which there were ſcarce any Signs either in the Urine or Pulſe. Boerh.

When perpetual, laborious Wheezing, great Anxiety, and conſtant Oppreſſion of the *Præcordia*, comatous Symptoms, cold Extremities, and dark, bad coloured Nails and Viſage come on, the Patient is in immediate Danger. Huxham.

Mittatur Sanguis ex Brachio dextro ad ℥x. Syd. *Ex largo Vulnere.* Boerh. On the following Day give *Pil. ex Colocynth. cum Aloe* ℈ij. at Four in the Morning. Syden.

When comatous Symptoms and a very difficult Breathing remain after Bleeding, cup and ſcarify the Neck and Shoulders. This has frequently had a ſurprizing Effect. When the Caſe is very threatening, bliſter the Scarifications. Huxham.

After Bleeding, let the Patient have the following *Clyſter*, which muſt be repeated daily till the Lungs are relieved:

℞. *Mel.* ℥iij. *Nitr.* ʒj. *Vitel. Ovor.* No. j. *Aq. Hordeat.* ℥viij. *M. F. Enema.*

Let

Let the Patient's Diet be very ſlender, ſuch as weak Broths, ſharpened a little with *Orange* or *Lemon* Juice, and he may drink a weak Mixture of Honey and Water; the *Steams* of warm Water may be taken in at the Mouth, and the following Decoction may be taken frequently:

2. ℞. *Rad. Fœnicul.* ℥ij. *Rad. Gram.* ℥iv. *Fol. Agrimon. Parietar. an. Manip.* iſs. *Sem. contuſ. Papav. alb.* ℥j. *Glycirrhiz.* ℥iſs. *cum. Aq. decoct. Spatio quadrant. Horæ* ℔v. *exhib. Capiat.* ℥ij. *omni Bihorio.*

Likewiſe let the Legs and Feet be bathed, and large *Bliſters* applied. BOERH. *Sydenham* adviſes a Repetition of the *Bleeding* and *Purging* alternately, every other Day, or at greater Intervals, as the Strength and Symptoms will permit or require. But he has generally found twice Bleeding ſufficient. The Days on which *Purging* is omitted, he directs the *pectoral Decoction* and *Linctus*, as in the *Pleuriſy*.

Huxham is of Opinion, that though *Bleeding* and *Purging* may be neceſſary at the very Beginning, it is very ſeldom proper to repeat the former, and the latter muſt be managed with ſome Caution; for, unleſs the Patient is properly ſupported during the Operation, he is apt to fall into *Faintneſs*, *cold Sweats*, &c. If the Patient ſpits largely a concocted Matter, which is ſometimes the Caſe, neither the one nor the other is proper, but *laxative Clyſters*, and *mild Eccoprotics*, at leaſt during the Expectoration. Likewiſe the Patient ſhould take frequently thin Muſtard-whey, *Hydromel*, or pectoral Decoctions, with a ſmall Quantity of ſoft White-wine in them. The *ſaline Draught* promotes Expectoration greatly, made with Salt, or Spirit of Hartſhorn, and Juice of Lemons, or diſtilled Vinegar. It likewiſe relieves Difficulty of Breathing, and commonly operates by Sweat or Urine. *Bliſters* ſhould never be neglected; lay a large one to the Neck at the Beginning; and if there be Occaſion, to the Legs and Thighs.

Of the INFLAMMATION *of the* LIVER.

WHEN the *Liver* is inflamed, it compreſſes the *Stomach*, *Diaphragm*, and the neighbouring *Viſcera* of the *Abdomen*; it ſtops the Circulation of the Fluids, hinders the Generation and Excretion of the Gall, and all Digeſtion: It produces a great many *bad Symptoms*, as the *Jaundice*, with all the Diſeaſes depending

pending thereon; for the *Liver* receives the refluent Blood from almoſt all the Parts of the *Abdomen*, and is the chief Inſtrument of almoſt all the Digeſtions that are made there. ARBUTH.

The Subſtance of the Liver may be expanded to a very conſiderable Bulk, without any acute Pain; whence the Subſtance of it is very rarely ſubject to an Inflammation. But there is a ſpurious Sort, which is ſeated in the convex Part, chiefly among the Membranes and Ligaments, which adhere to the ſpurious Ribs and Diaphragm. HOFFMAN.

A *Fever*, an *Inflammation* and *pungent Pain* on the Region of the Liver and Diaphragm, a *Tenſion* of the *Hypochondria*, *Yellowneſs of the Skin and Eyes*, and a *Saffron-coloured Urine*, are Signs of an inflammatory Diſpoſition of the Liver. ARBUTH.

It begins with *Cold* and *Shivering*, ſometimes with *Vomiting* and a *Fever*, *Watching*, *difficult Breathing*, *Inquietude*, and *Coſtiveneſs*. This is a Kind of *rheumatic* or *eryſipelatous* Fever, proceeding from a ſharp, viſcid *Serum*, lanciniating the *nervous Fibrillæ*. It is ſometimes accompanied with a Baſtard Pleuriſy, to which it is a-kin.

It is not very dangerous, and rarely kills, unleſs the *Viſcera* are unſound.

Narcotics and Sudorifics are to be ſhunned.

This Diſeaſe terminates as other Inflammations, being cured by Reſolution, Concoction, and Excretion of the morbid Matter; or elſe in an *Abſceſs*, *Schirrus*, or *Gangrene*.

During the firſt State a *warm Regimen* and *Saffron*, which ſome reckon a *Specific*, are improper.

Cooling, reſolving Liquors, taken inwardly, as *Whey*, with *Sorrel* boiled in it. *Outward Fomentations* and frequent Injections of *Clyſters*, *Bathing*, and Frictions, relax, and render the Matter fluid. *Honey*, with a little *Rheniſh Wine*, or Vinegar; the Juices and Jellies of ſome ripe Garden-Fruits; and thoſe of ſome lacteſcent Plants, as *Endive*, *Dandelion*, and *Lettuce*, are reſolvent.

Fat, oily Epithems, and Plaiſters, are to be ſhunned. Camphire in croceated Spirit of Wine is only to be uſed in the Beginning, or when the Fever is moderate, and Nature ſluggiſh. Bleeding at firſt is neceſſary on the affected Side, in the Hand or Foot.

Violent Purging *hurts*; gently relaxing the Belly *relieves*: Diluents, with *nitrous* Salts, are *beneficial*, or *Tamarinds* boiled in warm Water or Whey.

A Clyſter purely oleous is beneficial, with a Bladder full of an emollient Decoction. Inwardly diluting and reſolvent Mixtures.

If

If it is attended with the Jaundice, then apply Epithems of *Carduus Benedictus*, *Scordium*, Wormwood, Elder-flowers, Chamomile, Seeds of Lovage and Cummin boiled in Wine, and often applied. HOFFMAN.

Pringle says, the beſt Remedy, after plentiful Bleeding, is to lay a *large Bliſter* over the Part affected.

Bloody Stools, not in an extreme Degree, or ſtreaked with Blood, ought not to be ſtopped, becauſe they help to reſolve the Diſtemper: Bleeding at the Noſe often does the ſame.

The *feveriſh* Matter is frequently carried off by *Urine*; and therefore *Diuretics*, not highly ſtimulating, are proper.

Sweating ought not to be promoted by hot Cordials, but encouraged by warm diluting Liquors.

The Caſe is deplorable, when the Inflammation terminates in a Suppuration, unleſs the Abſceſs points outwardly, ſo as it may be opened. For if the *Pus* is evacuated into the *Abdomen*, it produces Putrefaction, or an incurable hepatic Dyſentery, or Bloody-Flux. ARBUTHNOT.

If the *Inflammation* be recent, extremely violent, and without any Signs or Hopes of Reſolution, Concoction, and Excretion, the Caſe muſt be treated with the ſame Cautions and Remedies; and the *ſame Method of Cure* muſt be purſued, as is directed in the *Pleuriſy*, and other ſimilar inflammatory Diſorders; and almoſt the ſame Remedies, ſuch only excepted as the Situation of the Part affected cannot admit of; except likewiſe, in the Caſe before us, that all antiphlogiſtic Fluids, which promote the Excretions by Stool, when either drank, or injected by way of Clyſter, are particularly ſerviceable. BOERHAAVE.

Of a PARAPHRENITIS.

THIS Diſeaſe is an Inflammation of the *Diaphragm*, and Parts adjacent. A *Paraphrenitis* is attended with a very acute continual Fever, and an intolerable inflammatory Pain of the Part affected; which is extremely augmented by Inſpiration, Coughing, Sneezing, Repletion of the Stomach, a *Nauſea*, Vomiting, Compreſſion of the *Abdomen* in going to Stool or making Water. Hence, the *Breathing* is thick, ſhort, and ſuffocating, and performed only by the Motion of the *Thorax*. There is alſo a conſtant *Delirium*; a drawing of the *Hypochondria* inwards and upwards, an involuntary Laughter, Convulſions, and Madneſs.

This

This Diſeaſe terminates as in a *Pleuriſy*, but is attended with more violent Symptoms, and is much more fatal. If the Part affected ſuppurates, the Matter will fall into the *Abdomen*, and produce a *purulent Aſcites*.

The Cure muſt likewiſe be attempted in the ſame Manner as in a Pleuriſy. *Emollient Clyſters* are often beneficial. BOERH.

Of the INFLAMMATION *of the* INTESTINES.

THIS Diſeaſe contracts the *Inteſtines*, and ſtops up the Paſſage through them. There is a *vehement*, *fixed*, *burning Pain*, which is irritated by Things taken inwardly. When the Inflammation is in the upper Part of the Inteſtines, the Stomach will be greatly diſtended by Wind. When the Pain is exaſperated, it produces *Convulſions* of the *Diaphragm* and *abdominal Muſcles*, Vomiting, painful Inflations, with Rumblings, and ſharp griping Pains, which may bring on the *Iliac Paſſion*, or Twiſting of the Guts. BOERH.

When there is a *burning Pain* in the *Abdomen*, with a *preternatural Heat* of the whole Body, as alſo a *quick Pulſe*, Loſs of Strength, Anxiety, and Inquietude, the Seat of the Diſeaſe may juſtly be ſuſpected to be in the Inteſtines. If the ſharp Pain is *above the Navel* and *below the Stomach*, attended with a Fever, *Nauſea*, and Reaching, it is a Sign that that Part of the *Colon* is affected which lies beneath the Stomach, and is extended from the Right to the Left Side. If the Pain lies in the *Right Hypochondrium*, under the *ſpurious Ribs*, it ſhews that Part of the *Colon* to be inflamed where it joins to the *Ilium*. When the Complaint is of the *Left Side*, under the Loins, where the *Pſoas Muſcle* is placed, it is a Sign the *Colon*, and that Part of the *Meſentery* joined thereto, is the Seat of the Diſeaſe; eſpecially when it adheres to the *Peritonæum*. But when the Pain is in the Middle of the *Abdomen*, about the *Navel*, it ſhews the *ſmall Guts* are certainly affected. In all theſe Caſes the *Pain* is ſuppoſed to be attended with a Fever.

When there is a *Fever*, and a *burning Pain* in the lower Part of the Belly, attended with a *Swelling*, which ends in a copious, putrid or purulent Flux, with a great Diſorder of the Bowels, it ſhews the Seat of the Diſeaſe to be in the *Meſentery*. HOFFMAN.

This *Diſeaſe* ſhould carefully be diſtinguiſhed from a *Colic*, proceeding from a cold Cauſe, becauſe what is good for the

latter,

latter, is Poiſon in the former. It muſt have a ſpeedy Remedy, or it will ſoon end in the *Iliac Paſſion*, or a *Mortification*.

Beſides *copious Bleeding*, there is hardly any other Method of Cure than fomenting and relaxing the Bowels with *emollient Liquids*, taken warm both by the Mouth and in *Clyſters*, and this every Hour. Yet *Acids*, in very deſperate Caſes, have been known to give Relief; ſuch as the *Juice of Lemons* taken by the Mouth, and *Vinegar* and *warm Water* given in *Clyſters*: When the Vomiting is exceſſive and continual, Opiates ſhould be given to quiet the Convulſions. ARBUTHNOT.

Pringle affirms in this Caſe, that the beſt Method of Cure is to lay Bliſters over the Part affected; and it has been practiſed with Succeſs, without any bad Conſequences, how ſoon ſoever they were applied after Bleeding. In particular they are uſeful in the *Ileus*, and ſeem to anſwer equally well in the fixed Pains of the Bowels, whether from an inflammatory or flatulent Cauſe.

Warm Fomentations, or young, vigorous, and ſound Animals, applied to the Body, are extremely beneficial. ARBUTH. The Patient ſhould only be nouriſhed with Broths, in which gently detergent Roots have been boiled. BOERH.

It is a fatal Error of ſome Practitioners, when they find the Body *obſtinately coſtive*, they give one Purge after another, which not only exaſperates the Diſeaſe, but renders it mortal. Even the Clyſters ſhould not be made of very ſtimulating Ingredients, but of *Milk alone* with a *little Nitre*; or Rain-water, with Syrup of Violets, or of Marſh-Mallows, or Roſes ſolutive; or the following:

1. ℞. *Aq. Pluvial.* ℥xij. *Syrup. de Alth.* ℥iſs. *Nitr. pur.* ʒj. *M. F. Enema. Injiciatur ſingulis tribus Horis; et veſica emolliente decocto plena Abdomini admoveatur.*

After *Bleeding* and *Clyſters*, if the Pain ſtill continues violent, there will be no Manner of Danger in giving *Opiates*, by which Means the excruciating Pain will be alleviated, the Spaſms appeaſed, and a breathing Sweat will follow. When this is done, and the Fever is abated, there will be no Occaſion to continue the *diluting*, *relaxing*, and *moiſtening Medicines*, but rather the *nervous* and *corroborating*; ſuch as the Preparations of Amber, [eſpecially the *Salt* and *Tincture*, the former of which may given in a Bolus from vi to xvi Grains, and the latter from xx to lxxx Drops in any convenient Vehicle.] HOFF.

If the Patient *ſurvives three Days*, and the Acuteneſs of the Pain abates, with a *Chillneſs* or *Shivering* throughout the Body,

it

it is a Sign of a *Suppuration*; then within *fourteen Days* the *Impoſthume* will break; and if it falls into the Cavity of the *Abdomen*, it will corrupt the whole Maſs of Fluids, purify the *Viſcera*, and turn to an *Aſcites*; whence the Patient will die of a Conſumption.

In this Caſe, *Whey* and *Chalybeate Waters* are likely to prove moſt beneficial.

If the *Fever* continues, with clammy Sweats, Paleneſs, an ichorous *Diarrhœa*, fetid, black, or like the Waſhings of Fleſh; a ſmall intermitting Pulſe, and at laſt a total Ceſſation of Pain; they are Signs of a *Gangrene*, and an approaching Death.

If the *Inflammation* continues a long while, and does not come to any great Height, nor is reſolved, nor ſuppurates; then there will be a conſtant *Stupor*, Weight, and a dull, gnawing Pain in the Part affected; which ſhews that a *Schirrus* is formed. *Broths* and *Whey*, and *alimentary Clyſters*, may in this Caſe ſupport the Patient's Life for a long Time. BOERH. ARBUTH.

Of the NEPHRITIS, *or* INFLAMMATION *of the* KIDNEYS.

THE Symptoms of a *Nephritis* are, a great inflammatory, pungent, burning Pain, in the Place where the Kidneys are ſituated, attended with a Fever; the Urine is made often, but ſmall in Quantity, and very red or flame-coloured, yet, in the higheſt Degree of the Diſeaſe, *watry*. There is a Numbneſs of the Thigh, and a Pain in the Groin and the Teſticle, of the ſame Side; a Pain in the *Ilium*, bilious Vomiting, and continual Eructations. BOERH.

When the Inflammation is deep, the Fever violent, the burning Pain in the Loins laſting, the Difficulty of making Water great, the Body very coſtive, the Anxiety and Straitneſs of the *Præcordia* exquiſite, the Urine crude and white; likewiſe if the Pain continues till the *fourteenth* Day, the Kidney will ſuppurate; which is known from the abating of the Pain, and from the thick, purulent Sediment of the Urine. This will ſometimes laſt ſeveral Years, till there is nothing left of the Kidney but a Bag: It is attended with a *Hectic Fever*, and the Patient, before he dies, is almoſt reduced to a Skeleton. If the Bag happens to burſt, it brings on a Retention of Urine, and intolerable Pains, which end in Death. HOFF.

If it continues beyond the *ſeventh* Day, an *Abſceſs* is to be feared, which is known to be forming by a Remiſſion of the Pain,

Pain, ſucceeded by a Pulſation in the Part, and Chillneſs and Shivering often returning; there will, likewiſe, be a *Weight* and Numbneſs in the Part affected.

When the Diſeaſe is favourable, it is cured by *Reſolution*, of a *copious*, *red*, and *thick Urine*, diſcharged at *one Time*, or by a large Flux of Blood from the *Hæmorrhoidal Veins*, in the Beginning of the Diſeaſe. BOERH.

Coffee coloured Urine is not a dangerous Symptom. ARBUTH. [But this ſeldom appears but in a *Fit of the Gravel*, which it likewiſe ſometimes uſhers in. This will be treated of in a Section by itſelf.]

It is *cured* by *plentiful Bleeding*, Revulſion and Dilution; by ſoft, emollient, antiphlogiſtic Decoctions: Thus,

1. ℞. *Rad. Gram.* ℥iv. *Sem. contuſ. Melon.* ℥iſs. *Glycirrhiz.* ℥j. *cum. Aq. decoct. ſpatio ſemihoræ* ℔iij. *exhibe*; *capiat* ℥ij. *omni quarta Parte Horæ.*

Clyſters may likewiſe be made of the ſame Ingredients, as alſo Fomentations and Baths. BOERH.

When a burning and fixed Pain in the Loins continues for ſome Time, it is a Sign that the venal Veſſels are ſtuffed and obſtructed with a thick Blood, which requires immediate Bleeding in the Foot; or if there is aDiſpoſition to an hæmorrhoidal Flux, apply Leeches to the *Anus*. Afterwards give ſuch Things as temperate the Heat of the Blood and promote a free Circulation, with a *Diaphoreſis*. For which Purpoſe, Emulſions, Demulcents, Diluents, Antiſpaſmodics, diaphoretic Powders with Cinnabar and Nitre, are preferable to every thing elſe.

Emollient Clyſters, without any *ſaline* or *purging Stimulus*, are the *principal Help* in this Diſeaſe. They may be made of Milk, Whey, or ſoft Water, in which Elder and Chamomile Flowers have been boiled, to which add an Ounce or two of Syrup of Marſhmallows, and a Dram of Nitre. The Body ſhould be kept open with Oil of Sweet Almonds, and Wind in the Bowels ſhould be diſcuſſed; for which Purpoſe *Cumin Seeds*, made into *Comfits*, are *inſtar omnium*. No *greaſy Applications* ſhould be uſed outwardly, nor *Spirit of Wine* and *Camphire*; but a Bladder half full of the Decoction of *emollient Flowers* in Milk, with a little *Saffron*. HOFF.

When there are *Convulſions*, or *exceſſive Pain*, Opiates are proper. If the *Vomiting*, a Symptom of this Diſeaſe, is too frequent, warm Water, ſweetened with Honey, is beneficial.

The Patient ſhould avoid all acrimonious Aliment; he ſhould neither lie too hot, nor on his Back.

By

By this Method, likewiſe, a *Nephritis*, ariſing from a *Stone in the Kidneys* or *Ureters*, may be cured.

When an *Abſceſs is formed*, the Medicines muſt be powerfully *maturating* and *emollient:* When the Urine appears purulent, they muſt be *Diuretics* of medicated Waters; Whey, and the like; together with *Balſamics*. BOERH.

Milk or *Whey* ſhould be medicated with *Flor. Hyperici, Summitat. Millefolii, Fol. Veronicæ, & Hederæ terreſtris.* Emulſions are likewiſe uſeful, of the four cold Seeds, and Sweet Almonds. Some attribute a great Virtue to *Cherry-tree Gum* diſſolved in Whey or Water, and taken often. Alſo Syrup of Marſhmallows is very uſeful: Add to theſe the Decoction of *Veronica* ſweetened with Honey, mixed with Powder of Nutmegs. When an *Ulcer of the Kidney proceeds from a Stone*, it will be neceſſary to abſtain from all acrid, hot, and ſpirituous Things; from Diuretics, Lithontriptics; for they will either bring on a freſh Inflammation, or bloody Urine. Good Honey, mixed with Powder of Nutmeg, and taken in a Decoction of *Veronica*, or Syrup of Marſhmallows, will be of great Uſe. In inveterate Ulcers of the Kidneys, a Mixture of Rob of Juniper-Berries and Malmſey Wine is excellent. A few Spoonfuls muſt be taken of it after a Meal. HOFFMAN.

Buttermilk, not very ſour, has been reckoned a great Secret in Ulcers of the Kidneys; and *Chalybeate Waters* have been beneficial to ſome. *Spruce Beer* is a good Balſamic in this Caſe: I ſhould adviſe ſoft Malt Liquors rather than Wine. ARBUTH.

If the Diſeaſe ends in a *Schirrus*, there will be a Palſy, or a Lameneſs of the adjacent Thigh; an *incurable Evil*; whence will proceed a *renal Tabes*.

When there is a ſudden Remiſſion of the Pain, a cold Sweat, a weak intermitting Pulſe, Hiccup, a Stoppage of Urine, or when it is livid, black, full of Hairs, fetid, abounding with brown or black Caruncles, a ſudden Loſs of Strength, there is a *mortal Gangrene*. BOERH.

Of the INFLAMMATION *of the* BLADDER.

THE *Pathognomonic Signs* of this Diſeaſe are, an *acute, burning, preſſing Pain* in the Region of the *Pubes*, attended with a Fever, a *continual Teneſmus*, or Deſire of going to Stool, and a *perpetual Striving* to make Water.

Other

Other Symptoms are, a Rumbling of the Bowels, griping Pains, great Anxiety of the *Præcordia*, difficult Breathing, Want of Appetite, Vomiting, Coldneſs of the extreme Parts, a hard, quick, unequal, contracted Pulſe, Inquietude, and ſometimes Convulſions.

There is another Kind which is more ſuperficial, and is either *rheumatic* or *eryſipelatous*, in which the Fever is more eaſily and ſpeedily cured by promoting a *Diaphoreſis:* And Perſons in *Years*, or who are affected with the *Scurvy*, *Gout*, *Rheumatiſm*, or violent *Head-Achs*, are moſt ſubject to it; eſpecially if they catch Cold, by being expoſed to the Rigour of a cold North Wind.

The former ariſes moſt commonly from the Stoppage of the Menſes, bleeding Piles, or other uſual ſanguinary Evacuations, and not ſeldom from a violent *Gonorrhœa* unſkilfully ſuppreſſed by Aſtringents, or when treated by Medicines of too ſharp and hot a Nature.

This Diſeaſe is mortal, if it terminates in an Ulcer or Mortification; the latter is immediate Death.

The *Cure* muſt be attempted with *Bleeding in the Foot*, if a Suppreſſion of the Menſes or hæmorrhoidal Flux be the Cauſe.

If it proceeds from the *Scurvy*, &c. Recourſe muſt be had to gentle Diaphoretics, Diluents, and Remedies which obtund the Acrimony of the Humours; ſuch as *Decoctions* of the Roots of *Scorzonera*, *China*, Skirrets and Fennel. Alſo Infuſions in the Manner of Tea of the Tops of *Yarrow*, Flowers of *Mallows*, Winter-Cherries, [*Baccæ Alkekengi*,] and Seed of Daucus, made with Milk, and ſweetened with *Syrup. de Althæa.* To theſe may be added Emulſions of the four Cold Seeds. If the Patient's Body is coſtive, *Manna* will be proper, with *Nitrum ſtibiatum*, to which *Rhubarb* may be joined as Occaſion requires.

If the Diſeaſe is violent, *Diaphoretic Powders* will be neceſſary, with Nitre in a larger Proportion than ordinary, as alſo five Grains of Saffron and two of Camphire, with the *Emulſions* aforeſaid. [Or thus,

1. ℞. *Calc. Antimon. illotæ* ʒſs. *Croci, gr.* v. *Camphor. gr.* ij. *M. F. Pulvis, ſtatim ſumendus.* Or,

2. ℞. *Nitri pur.* ℈j. *Antimon. Diaphor. gr.* xv, *Croci, gr.* iv. *Camphor. gr.* iij. *M. F. Pulvis.*]

Externally, *Antiſpaſmodics* and gentle Diſcutients will be proper: For this Purpoſe it is my Method to apply Bladders filled with a Decoction of the *emollient Flowers*, or inſtead of that, the following Plaiſter:

3. ℞. *Emplaſt. attrahent.* ℥j. *Sperm. Cet.* ʒiij. *Croc. Camph. an.* ʒj. *M. F. Emplaſtrum.* Or,

4. ℞. *Ol. Amygd. dulc.* ℥j. *Ol. Hyoſciam.* ʒiij. *Camphor.* ʒj. *M. Illine crebrius Regionem Pubis & Perinæi.* Or,

5. ℞. *Ol. Amygd. dulc.* ʒiij. *Spir. Sal. Ammoniac.* ʒj. *Camphor.* ℈j. *Unguent. ex Althæa* ℥j. *M. F. Linimentum, quo inunge Regionem Pubis & Perinæi.*

If the *Teneſmus* and Difficulty of Urine ariſe from *Spaſms*, there is nothing better than the Vapours of a Decoction in Milk of the Flowers of *Melilot*, *Elder*, *Chamomile*, and *Mallows*, and the Tops of *Yarrow*. This Decoction may be put into a Cloſe-ſtool, and the Patient ſit over it.

The *Selters* Mineral Waters with Milk, are excellent for cleanſing the Bladder of mucous and ſanious Matter. Or the Waters may be drank at Meals in the Spring and Fall, mixed with a fourth Part of *Moſelle* or *Mountain* Wine, for a Month together. Hoffman.

Tulpius informs us, that a deſperate Ulcer of the Bladder was cured by the conſtant Uſe of *Spaw-water*.

I would lay this down as an Axiom for all Practitioners to obſerve, that in all Inflammations of the *nervous* and *membranous* Parts, as in the Phrenſy, Pleuriſy, in the Inflammation of the Liver, Stomach, Inteſtines, and Bladder, nothing is more pernicious, or brings on Death more ſpeedily, than *Opiates* taken inwardly. Hoffman.

Of the Ophthalmia, *or* Inflammation *of the* Eyes.

An Inflammation of the *Membranes* which inveſt the Eye, is a very common Diſeaſe, eſpecially of the *Adnata* or *albuginous Coat* of the Eye. Hoffman.

The Eyes are very much inflamed, with great Pain, Tenſion, Tumour, Heat, and Redneſs; and ſometimes there is ſuch a ſtrong Senſation of pricking in the Eye, as if it was cauſed by a Needle or Thorn. The Eyes at firſt are full of *ſcalding Tears*, which are followed by a pituitous Matter, which is ſometimes ſmall in Quantity, ſometimes more plentiful; a *Sordes* adheres to the greater Angle of the Eye, and when the Diſeaſe is violent, the neighbouring Parts will ſwell even as far as the Cheeks, with a ſtrong Pulſation of the adjacent Arteries. The ſmall Blood-

Blood-Veſſels are viſible, which in Health are not to be ſeen, and all the White of the Eye becomes red. LOMMIUS.

If, beſides theſe external Signs, there is an Appearance of Moths, Duſt, Flies, *&c.* floating in the Air, there is an Inflammation of the *Retina*, which I call an *internal Ophthalmia*. PITCAIRN.

As in all Diſeaſes of the Eyes, ſo eſpecially in their Inflammation, the Patient muſt abſtain from all ſpirituous Liquors, the Smoak of Tobacco and Sternutatories; he muſt likewiſe avoid ſmoaky Rooms, and the Vapours of Onions and Garlick, as alſo all vivid Lights and glaring Colours. The Drink may be Water alone, or a Decoction of Fennel Seeds, Hartſhorn, and Barley; the Aliment muſt be light of Digeſtion. HOFFMAN.

Intemperance of all Kinds renders Perſons liable to this Diſeaſe; as alſo a *keen North Wind*, and looking earneſtly at the *Fire*, *Sun*, or *glaring Colours*: Likewiſe ſmoaky Rooms, metallic Vapours, Coſtiveneſs, and unuſual Refrigerations of the extreme Parts, eſpecially in the Time of Menſtruation. Sometimes it is owing to other Diſeaſes, as the *Small-Pox*, *Meaſles*, *Scurvy*, and the driving back the *Gouty Matter*.

A ſlight *Ophthalmia* is eaſily cured; a more ſevere one generally continues a Month, or longer, and often leaves a Spot in the *Cornea*, or depraves the Humours of the Eye. HOFFMAN.

The ſlighter Inflammations from Duſt or the Sun, are removed by fomenting with warm Milk and Water, and anointing the Eyes with *Unguentum Tutiæ* at Night: If the Eyes are weak, and but little inflamed, they may be waſhed with Brandy and Water.

In all Caſes we are to look narrowly and often into the inflamed Eye; ſince the Inflammation may be either begun, or be kept up by Moats, or by Hairs of the *Cilia* falling in, or growing inwards, ſo as to cauſe conſtant Irritation. PRINGLE.

Take away ten Ounces of Blood, and the next Morning give the *common purging Potion*, which may be repeated twice or more, with the Interpoſition of two Days between each Doſe, and at Night an Ounce of *Diacodium*.

On the Days in which Purging is omitted, let the Patient take four Ounces, three or four Times in a Day, of the Emulſion of the four greater Cold Seeds, and white Poppy Seeds. Externally, the following *Collyrium*:

1. ℞. *Aq. Plantag. Roſ. Rub. & Spermat. Ranar. an.* ℥j. *Pulv. Tutiæ ppt.* ʒj. *F. Collyrium.* A few Drops are to be dropped into the Eyes twice a Day, but not till after the firſt Purge.

If the Diſeaſe will not yield to repeated Cathartics and Bleeding, give an Ounce of *Diacodium* every Night. SYDENHAM.

The ſlighter Caſes may be cured without Bleeding; but if any Degree of a Fever is joined, or the Inflammation is conſiderable, this Evacuation is never to be omitted. The more violent Inflammations are not to be cured without larger Bleedings, unleſs we can make a Derivation from the Part affected without draining the whole Body. For this Purpoſe Bliſters are uſefully applied behind the Ears, eſpecially if they are to lie on for two or three Days, and if the Sores are afterwards kept running. But I have ſometimes found the *Bleeding by Leeches* more efficacious than this Method. Two of them ſhould be applied to the lower Part of the Orbit, or near the external Angle of the Eye, and the Wounds be allowed to ooze for ſome Hours after they are fallen off. Therefore in all great Inflammations, I have uſed this Method, together with Bliſters and Purging, if neceſſary; I mean after Bleeding in the Arm or Jugular.

This Method will likewiſe do in *Ophthalmias from external Injuries*; but not when they proceed from a *ſcrophulous* or *venereal Cauſe*. In *bad Caſes*, after the Inflammation has yielded a little to Evacuations, the *Coagulum Aluminoſum*, ſpread on Lint, and applied at Bed-time, is the beſt external Remedy. PRINGLE.

In a *ſtrumous Ophthalmia*, *Calomel* is the only Remedy; and in all Kinds of this Diſeaſe, the following Pills will be convenient:

2. ℞. *Pil. ex Colocynth. ſimplic.* ʒſs. *Merc. D.* gr. viij. *Ol. Caryoph. gutt.* ij. *F. Pil.* vij. *pro unica Doſi.* Or,

3. ℞. *Extract. Cathar. Reſin. Jalap. Merc. Dul. an.* ϑſs. *Ol. Cinnam. gutt.* j. *Syr. de Rhamn. q. ſ. ut f. Pil. exiguæ pro Doſi.*

In the mean while, *Bliſters* muſt be applied to the Neck, and kept running for ſome Days, and after that, *Setons*, or *Iſſues* at leaſt. It is hard to ſay of what vaſt Advantage Bliſters and Setons are in this Diſeaſe; wherefore they ought to be ſtrongly urged.

The expreſſed Juice of *Millepedes* may alſo be given [xxv are a Doſe] on the Days purging is omitted, in four Ounces of Beer, or *Rheniſh*, or *French* White Wine; let them ſtand, when mixt, all Night, and then take it with a little Sugar in the Morning, after the Mixture is ſtrained. PITCAIRN.

But according to the later Experience of Dr. Fordyce, Fothergill, *and others*, a ſtrumous Ophthalmia *may be certainly and ſafely cured by Half a Dram of the Bark given twice a Day.* Dr. *Fothergill*

thergill gave the Bark in the following Manner, becauſe it occaſions the leaſt Diſguſt:

4. ℞. *Pulv. Cort. Peruv.* ℥j. *Coque in Aq. pura* ℔ ij. *ad* ℔ j. *ſub finem addendo Rad. Glycyrrh. inciſ.* ℥ ſs. *Colaturæ adde Aq. Nuc. Moſch.* ℥ ij. *M. capiat. Coch.* ij, iij, *vel* iv, *cum Tinct. Guaiac. vol. gutt.* xxx. *ad* lx. *uſque, bis terve quotidie.*

He obſerves farther, that a ſmall Quantity of the *Cortex Winteranus* added, gives the Medicine a grateful Warmth, and renders a Quantity of the Nutmeg-water leſs neceſſary; and a little Liquorice, a few Raiſins, Gum Arabic, or the like, added to the Decoction before it is taken off the Fire, by making the Liquor viſcid, enables it to ſuſpend more of the fine Particles of the Bark to the Advantage of the Medicine.

The Length of Time in which the Bark is to be taken is uncertain, for in ſome the Cure is performed in leſs Time than others.

Hoffman, beſides Bliſter, Setons, *&c.* recommends *Cupping, with Scarification*, in the Nape of the Neck, and behind the Ears; and in the violent Sort of this Diſeaſe, *Bleeding* in the *Jugular*; as alſo *Sinapiſms* of *Rocket Seeds* boiled in Wine, and then put into ſmall Bags and applied to the Nape of the Neck, or under the Arm-pits. For inward Uſe, he prefers to all other Remedies, an Infuſion, in the Manner of Tea, of *Valerian-root*, *Liquorice*, *Elder Flowers*, and *Fennel Seeds*, drank plentifully; and before the Drinking of it to receive the Vapour or Steam into the Eyes. Externally, he adviſes the following ſafe *Collyrium:*

5. ℞. *Aq. Flor. Samb. Sclopetariæ* [Arquebuſade Water] *an.* ℥j. *Camph. gr.* iij. *Sacchar. Saturn. gr.* x. *M. quod cum Linteo triplicato crebrius tepidè Oculis applicandum.*

[*Shaw* uſes *Camphire* in a larger Proportion, *viz.* a Drachm diſſolved in an Ounce of *French* Brandy, and ſays it cured a Perſon of a Weakneſs and Diminution of Sight of both Eyes, after a Month's Indiſpoſition, occaſioned by the grazing of a Hat in one of them, and would not yield to the uſual Methods. *Junker* ſays, if this Compoſition makes the Eye ſmart too much, blowing therein will ſoon take off the Brandy, and leave the Camphire behind.]

But when there is a corroding Acrimony, the Mucilage of Quince Seeds with Roſe Water, with a very little Saffron, is proper; to which, if it is neceſſary, a little Opium may be added.

If gentle Cathartics will ſucceed, he prefers them to the more violent, thus;

6. ℞. *Mann. elect.* ℥ij. *Rhubarb. Cremor. Tart. an.* ʒj. *Aq. Fœnicul.* ℥viij. *Colaturæ adde Extract. Centaur. min. gr.* xij. *Ol. Junip. gutt.* iv. *M. F. Potiuncula quæ mane tribus ſucceſſive hauſtibus capienda eſt, interponendo Juſculi avenacei Sorbitionem.*

If there is a *ſharp Serum* in the Blood, or the *Ophthalmia* is ſymptomatic, or if it proceeds from other Diſeaſes, or is joined to a *Hemicrania*, then,

7. ℞. *Rad. Sarſaparil. Scorzon. an.* ℥ iſs. *Sem. Fœnicul.* ʒj. *Antim. crud. in Petia ligat.* ʒij. *Sal. Tart.* ℈j. *Infundantur in Aq.* ℔x. *& per Horam integram in Vaſe probe clauſo bulliant.* Let the Patient take half a Pint of this Decoction in a Morning, expecting a gentle Sweat to follow. The better to promote which, a Drachm of the following Powder may be taken in the ſame Decoction, Morning and Evening:

8. ℞. *Corn. Cerv. C.* ʒij. *Rad. Pimpinel. Antimon. Diaphor. Pulv. è Chel. Canc. comp. an.* ʒj. *Cinnab. ppt.* ʒſs. *M. F. Pulvis.*

And every Evening temperate *Pediluvia* may be uſed, as well as in other Kinds of this Diſeaſe.

Some noted outward Applications are to be avoided, becauſe they ſometimes occaſion *Blindneſs*. That compoſed of *Lime-Water*, *Sal. Ammoniac*, and *white Vitriol*, is too ſharp; that of *Allum*, *Dragon's Blood*, *Bole Armenic*, *Calamy*, *Tutty*, and the White of an Egg, is too aſtringent; that of the Waters of *Frogs Spawn*, *Roſes*, *Plantane*, and *Sugar of Lead*, is too cooling; that of *Calamy*, *burnt Hartſhorn*, and *Tutty* is too drying; that of the Mucilages of the Seeds of *Fleawort*, *Quinces*, *Fenugreek*, *Gum Dragant*, and *freſh Butter*, is too relaxing.

In a *Chronical Ophthalmia*, where there is a continual Dripping of a ſalt, ſharp *Lympha*, mix a Scruple of *white Vitriol* with two Drams of unſalted Butter, of which put as much as the Size of a Pea into the greater Angle of the Eye; repeating it now and then. HOFFMAN.

Dr. *Cheyne* ſays, *Æthiops Mineral*, taken in a large Doſe twice a Day, and continued a long Time, never fails of curing an inveterate *Ophthalmia*.

The following Cataplaſm of *Etmuller*, is uſeful to eaſe the Pain.

9. ℞. *Pulp. Pomor. dulc. Aſſat. q. v. Alb. unius Ov. cum Sacchar. Chryſt. bene conquaſſat. Camph. gr.* xij. *M.*

Junker.

Junker commends white Vitriol as an excellent Remedy.

10. [℞. *Vitriol. alb.* ʒiij. *Aq. Fontan.* ℔j. *M. F. Collyrium.*]

Weißbach, from *Stahl*, recommends the following, in this and all other Diſorders of the Eyes, even in an *incipient Cataract*, and gives an Inſtance of a Girl who was blind, whom it reſtored to Sight.

11. ℞. *Butyr. illot.* ʒiv. *Tutiæ ppt.* ʒj. *Coral. rub. Camphor. Sacchar. Saturn. an.* ʒſs. *Pompholyg.* ʒij. *Virid. Æris, gr.* xij. *Miſceantur optimè, & verſus Somnum cuivis Oculorum Angulo ad gr.* ij. *immittantur.*

Sir *Hans Sloane*, ſome Years ago, communicated his own Medicine to the Public, with which he has performed many great Cures; it is as follows:

12. ℞. *Tutiæ ppt.* ℈j. *Lap. Hæmatit. ppt.* ſs, ij. *Aloes Succotrin. gr.* xij. *Marg. ppt. gr.* iv. *terantur ſimul in Mortario marmoreo & cum q. ſ. Adipis Viperini, fiat Linimentum.*

The Method which has beſt ſucceeded with me in facilitating the Uſe of this *Liniment*, is to *bleed* and *bliſter* in the Neck and behind the Ears, in order to draw off the Humour from the Eyes; and afterwards, according to the Degree of the Inflammation, or Acrimony of the Juices, to make a Drain by *Iſſues* between the Shoulders, or a *perpetual Bliſter*: And for the *waſhing* of the Eyes, I generally recommend *Spring Water*. The beſt inward Medicines are Conſerve of *Roſemary Flowers*; *Antiepileptic Powders*, ſuch as *Pulvis ad Guttetam*; *Betony*, *Sage*, *Roſemary*, *Eyebright*, *wild Valerian Root*, *Caſtor*, waſhed down with Tea made with the ſame Ingredients; as alſo Drops of *Spir. Lavendul. comp.* and *Sal. Volat. Oleoſ.*

If the Inflammation returns, drawing about ſix Ounces of Blood from the Temples, by Leeches, or cupping on the Shoulders, is very proper.

The *Liniment* is to be applied with a Hair Pencil, the Eyes winking, or a little opened.

This Medicine has cured many whoſe Eyes were covered with *opaque Films* and *Cicatrices*, left by Inflammations and Apoſtems of the *Cornea*; as alſo where there was an *exceſſive Pain* in the Eyes, ſhooting upwards into the Head: It likewiſe is beneficial to *weak* and *ſore Eyes*.

It is to be obſerved (contrary to *Pitcairn*'s and the common Practice) *that* Cathartics, *eſpecially with the Addition of* Mercury, *are prejudicial to the Diſeaſes of the Eyes, which are cured by this Medicine.*

Of the Slow *and* Hectic Fever.

THERE is a remarkable Difference in Fevers of this Kind: Strictly ſpeaking, a *Slow Fever* is that which has milder Symptoms, a gentler Heat, with profuſe Sweats after Sleeping; after which, and before Noon, the Pulſe is natural; there is not ſuch a Want of Appetite, nor exceſſive Weakneſs, nor Dryneſs of the Skin, nor ſuch dark-coloured Urine, nor ſo great Danger as in the *Hectic Fever*.

In a *Hectic* the Heat is continual, the Pulſe always hard, weak, and quick; and after Meals, and in the Evening, the Heat, Hardneſs, and Quickneſs increaſe; the Skin and Tongue are hard, rough, and dry; there is a Fluſhing in the Cheeks; the whole Body is weak and flaccid; the Sleep is not refreſhing; the Urine is reddiſh, with a Sediment below, and a fat, bluiſh Pellicle above; the whole Body is continually waſting, and the Bones ſtick out in every Part.

Beſides, there is another Difference between them, the Cauſe of a *Slow Fever* lies moſt in the Fluids; of a *Hectic*, in the Solids. Hence, the *Slow*, by the Aſſiſtance of Medicine, may be cured; but the *Hectic* admits of no Cure, or one that is very difficult.

Hectic Fevers are chiefly Symptomatical, and proceed from dangerous Ulcers, *Vomicæ*, Abſceſſes and Corruptions of the *Viſcera*. Hence, thoſe who are affected with, and die of a *Phthiſis*, *Abſceſs*, *Vomica*, or *Ulcer* of the *Lungs*, *Meſentery*, *Kidneys*, *Womb*, or *hidden Suppuration* in the internal Parts and Muſcles of the *Abdomen*, or with a *Cancer* of the Genital Parts, Breaſts, Womb; as alſo with a *Cachexy*, *Dropſy*, from an *Induration*, *Schirrus*, *Corruption*, and *Putrefaction* of the Liver, Spleen, *Omentum*, *Pancreas*, and Glands of the Meſentery, *all go off with a Hectic Fever*. The *Cauſe* of which is, a corrupt, putrid Humour, which depraves and ſpoils all the Juices of the Body.

Slow Fevers ariſe from obſtinate, intermittent, or continual Fevers, from the Small-Pox and Meaſles, from profuſe Hæmorrhages, from long Diarrhœas, Dyſenteries, from an exceſſive Salivation, *Gonorrhœa*, or *Fluor Albus*; from Care, Watching, intenſe Study, hard continual Labour, inordinate Coition, or the Abuſe of Spirituous Liquors.

Fatal Signs in a *Hectic* are a continually weak, quick Pulſe, and an entire Loſs of Appetite and Strength, inſomuch that the Patient can ſcarce either move his Body, or ſit in an erect Poſture; an *Hippocratic Countenance*; little red or oily Urine, made

made with a hiſſing Noiſe; a falling off of the Hair, a Looſeneſs, immoderate Sweats, and Swelling of the Feet.

In the *Cure* of theſe Diſeaſes, Reſpect muſt always be had to the *Cauſe*, and therefore I ſhall ſay ſomething diſtinctly of each.

Of the Cure of Slow Fevers *proceeding from* Crudities.

When, after other Diſeaſes, a *Fever* ariſes from *Crudities* proceeding from a bad Digeſtion, and the crude, ſluggiſh Juices of the *Primæ Viæ* conſequent thereupon, it is known by a *languid Feebleneſs*, *internal Heat*, *Propenſity to Sweat*, eſpecially in the Palms of the Hands and Soles of the Feet. In this Caſe, the Stomach and Parts adjacent muſt be cleanſed from the *Sordes* which is the Fuel of the Fever: This may be done by a gentle Vomit of *Ipecacuanha*; it may be likewiſe carried downwards by *neutral Salts*, which will alſo help to promote Digeſtion, ſuch as, *Terra foliata Tartari*, *Nitrum ſtibiatum*, *Sal Polychreſtum*, a Solution of *Crab's Eyes*, *Tartar Vitriolate*, either alone or mixed with half the Quantity of *Rhubarb*, given often, but in ſmall Doſes. After the Alimentary Canal is cleanſed, you muſt proceed to *Analeptics* and *Stomachics*, for which Purpoſe I would recommend the Tincture of *Cort. Eleuther.* and *Gentian. rub.*

If from Diſorders in the Hypochondria.

When the Patient is plethoric, and *cacochymical*, *cachectical*, *ſcorbutical*, or the *Menſes*, or Hæmorrhoidal Evacuations are ſtopped, and cauſe this Diſeaſe; or if it proceed from Voraciouſneſs, or bad Diet, or the Abuſe of ſpirituous Liquors; then Endeavours muſt be uſed to free the Liver, Spleen, and Meſentery, and its Veſſels and Glands, from Obſtructions. For this Purpoſe, Mineral Waters are proper, as the *Selters*, likewiſe the *Thermæ*, or hot Bath Waters.

But where theſe cannot be had, I have uſed with Succeſs, a Decoction of thin Veal Broth, with the Roots of *Succory*, *Fennel*, *Aſparagus*, *Dog-Graſs*, and *Viper-Graſs*; the Patient is to drink a Quart a Day for ſome Weeks, taking before it ſome Preparation of Steel, ſuch as the Tincture of Steel, or the Tincture of *Martial Flowers*.

If from an Eroſion of the Stomach *and* Bowels.

When a *ſlow Fever* happens from an Eroſion of the Stomach and Bowels, all ſharp, ſalt, acid, ſtimulating Things are as bad

as

as Poiſon. I have known a Decoction of *Saſſafras* and *Cortex Eleutheriæ*, in Milk, as alſo of Chamomile Flowers, and the Tops of Yarrow, drank to about a Quart to a Day, very ſerviceable; likewiſe Roots of Marſh-Mallows, or Rice boiled in Milk, or *Gum Dragant.* diſſolved in Mint-Water. Milk Clyſters are alſo beneficial, with the Yolk of an Egg. Turpentine and Honey, or other Emollients, with the Syrup of Marſh-Mallows. When there are *Spaſms* in the Bowels, our *antiſpaſmodic Pills* are uſeful, made of *Extract of Chamomile, Yarrow, Oil of Nutmegs, Extract of Saffron*, and *Caſtor*.

If from the Loſs of the neceſſary Fluids, and Want of Strength.

When this Fever proceeds from excruciating Paſſions of the Mind, Sadneſs, Cares, hard Labour, Watching, Abſtinence, inordinate Coition, the *Fluor Albus*, *Gonorrhœa*, *Diarrhœa*, giving ſuck too long, or running Ulcers, from which the Strength and viſcid Juices are decayed, all Things that raiſe a Commotion in the Blood, and ſtimulate the Bowels, are bad; as alſo Aliment that is too ſubſtantial. It rather requires Reſt both of Body and Mind, a light, temperate Diet, Medicines that ſheath the *Acrimony*, allay the *Heat*, and gently raiſe the ſinking Spirits.

Hence, Emulſions of Almonds, of the four Cold Seeds, are proper; as alſo Aſs's, Goat's, or Woman's Milk, with the Juice of *River-creſſes*; Chicken-Broth, Broth made of River-Crabs, or Wood-Snails bruiſed; ſome commend Oyſters, if the Stomach will bear them, and Inſtances of their extraordinary Efficacy have been produced. But little Wine ſhould be allowed, and that of the ſofteſt Kind, mixed with Water.

If from the Abuſe of Spirituous Liquors.

In this Caſe all heating Spirituous Liquors, and Strong Beer, ſhould be avoided; as alſo Analeptics, Inciders of Phlegm, and Stomachics. Gruel, after *Lower*'s Method, will be proper, made of *Oatmeal, Succory-Root, Red Poppy-Flowers*, and a little *ſtibiated Nitre*; likewiſe *Whey*, with a little *Nitre*, or *freſh Buttermilk*, which is greatly eſteemed for its extraordinary Efficacy; to theſe we may add, *Ptiſans* of *Pearl Barley* and *Succory*, *thin Emulſions*, and *Hartſhorn Jellies*.

If from a Suppreſſion of the Menſes.

This Circumſtance requires immediate Bleeding in the Foot, and reſolvent Decoctions of Succory-Roots, Leaves of Sow-thiſtle, Daiſy and Elder-Flowers, forbearing all ſtrong Emmenagogues. But if the Patient has laboured long under a ſlow or Hectic Fever, and is greatly weakened and emaciated, Bleeding muſt be omitted. If after Lying-in the *Menſes* are ſtopped, and there is a Hectic, with an Atrophy, Cough, Diarrhœa, univerſal *Languor* of the whole Body, and a ſlow conſuming Heat, no Emmenagogues muſt be uſed, but directly the contrary. The ſame may be ſaid of the Stoppage of the periodical Flux of the *Bleeding Piles*; for the giving of *Aloetics*, in this Caſe, has hurried many out of the World.

If from a Maraſmus Senilis.

There are two Cauſes which produce tabific Fevers in Perſons advanced in Years; the one is a *Plethora*, or rather a Quantity of thick Blood ſtuffing and obſtructing the *Viſcera* and the *Meſentery*: The other, a *Cacochymy*, from a Plenty of *impure ſalt Serum*, not ſecreted through the Skin, or otherwiſe.

If the Patient has been addicted to a ſedentary inactive Life, his Appetite remaining good, and has omitted accuſtomary Bleeding, or the ſpontaneous Evacuations of Blood are ceaſed, and he is in Danger of a *ſlow Hectic*, Bleeding is indicated, and wholeſome Diluters muſt be freely drank, abſtaining from Food of too plentiful Nouriſhment, and uſing *convenient Exerciſe*.

In the other Caſe, you muſt carry off the *Sordes* by *gentle Laxatives* of Manna, Rhubarb, and Raiſins; and the roſcid Juices muſt be renewed by Jellies, *Lacticina*, and eſpecially *Aſſes Milk*, which will be very efficacious.

If the Hectic Fever *of Children.*

When this comes on after the *Small-Pox* or *Meaſles*, and the Belly ſwells while the upper Parts decay, it ſhews there are *hard, ſchirrous, ſteatomatous Tumours* in the *Meſentery*, as has been made appear by Diſſections, and *Tubercles* and *Vomicæ* in the Lungs. This may be prevented, but not cured. If it proceeds from *Voracity* of *Appetite*, and *Refrigeration* of the *Body*, the Caſe is not deſperate. The Uſe of temperate Baths of ſweet Water, continued for ſome Time, will be of great Uſe; and to remove the Obſtructions of the *meſaraic Glands* and Veſſels, the frequent,

but

but ſparing Uſe of the following ſaline, aperient Mixture will be neceſſary:

1. R. *Sal. Tartar. Nitr. Arcan. duplicat. an.* ʒij. *Sal. Ammoniac.* ʒiij. *M.* A little of this muſt be put into the Child's Drink, according to his Age.

If a true Hectic Fever.

The *Roſcid Juices*, which are continually waſting, muſt be repaired as much as poſſible by a *Milk-Diet*. The beſt is that of a ſound Woman, ſucked immediately from the Breaſt; that of an Aſs nouriſhes leſs, but it refrigerates more, tempers the Heat, and is detergent and aperient. If Cow's or Goat's be uſed, it muſt be corrected, leſt the Caſeous Subſtance offend the Stomach. If Aſs's Milk cannot be had, let the Patient, the firſt Morning, drink a Pint of Cow's Milk, while at Graſs, in which an Ounce of *Manna*, or Sugar of Roſes, or Conſerve of Roſes, has been diſſolved. Afterward, about a Quart of Milk in a Day, with half an Ounce of Sugar, and half a Drachm of Nitre. When it proceeds from a *Fault* in the *Meſentery*, or an *internal Ulcer*, Milk and Water alone; but above all, the *Selters Waters* are proper. Or for Want of this, an Infuſion in Water of *Male Speedwell*, *Sowthiſtle*, *Sage of Jeruſalem*, *Liverwort*, *Coltsfoot*, *Ground-Ivy*, *Maiden-Hair*, *Flowers of St. John's Wort*, and *Roſes*; give equal Quantities of this Infuſion and Milk, with a little Sugar, and a few Drops of *Oil of Tartar per Deliquium*. It muſt be drank pretty warm, and continued for ſix Weeks: No *Wine* muſt be allowed, though a little *Mead* may, for the Stomach's Sake. But if the Patient be *hypochondriacal*, or the Fever is violent, with a Head-ach, Milk is not convenient.

Medicines that are greatly *corroborating* are alſo uſeful, as the Solution of *Coral* or *Mother of Pearl* in *Orange Juice*, *Cortex Eleutheriæ*, or the *Cortex Peruv.* made into an *Electuary*, with Syrup of Lemons, will be advantageous. [*Heiſter* affirms, he has cured many of theſe Fevers, with the Bark, in a few Days. Be that as it will, it is certainly a moſt efficacious Medicine in theſe Caſes, and even in the worſt Stage of a Conſumption of the Lungs.]

But above all things, *Riding daily* muſt not be forgot, being the beſt Kind of Exerciſe, and highly beneficial in theſe Diſtempers.

Of the Apoplexy.

THIS Diſeaſe is a ſudden Abolition of all the Senſes, external and internal, and of all voluntary Motion, commonly attended with a ſtrong Pulſe, laborious Breathing, a deep Sleep, and Snorting.

There is no Difference between a Perſon *aſleep*, and in an *Apoplexy*; but that the one can be awaked, and the other cannot.

The *Cauſes* of this Diſeaſe are a particular Conformation of the Body, as a ſhort Neck, for ſome have fewer *Vertebræ* in their Necks than others; a groſs, plethoric, fat, phlegmatic Conſtitution; *polypous Concretions* in the carotid and vertebral Arteries, or about the Heart, or within the Scull, which are known by an unequal Pulſe, a *Vertigo*, and ſometimes a momentary Loſs of Sight. An inflammatory Thickneſs of the Blood, preceded by a Fever, attended by the Head-ach, Redneſs of the Face and Eyes. An advanced Age, attended with a glutinous, cold, catarrhous, leucophlegmatic Conſtitution.

The Forerunners of an *Apoplexy*, in theſe laſt, are Dullneſs, Inactivity, Drowſineſs, Sleepineſs, Slowneſs of Speech, and in giving Anſwers, Vertigoes, Tremblings, Oppreſſions in Sleep, Night-Mares; weak, watery, and turgid Eyes; pituitous Vomiting, and laborious Breathing on the leaſt Motion.

Other *Cauſes* may be, whatever compreſſes the Veſſels of the Brain, as a *Plethora*, a *Cacochymy*, attended with Fulneſs of the Veſſels; a *hot Conſtitution*; [theſe are moſt liable to this Diſeaſe after violent Motion and exceſſive Heat; and they ſhould avoid *luxurious* Diet, ſpirituous Liquors, Spices, hot Cordials, and Vomits.] *Tumors* within the Scull; the Velocity of the Blood encreaſed towards the Head, and diminiſhed downwards; *compreſſion* of the Veins without the Scull, which bring the Blood back from the Brain; the *Effuſion* of any Fluid compreſſing the *Dura* and *Pia Mater* externally; the *Effuſion* of any Fluid within the Brain, which by its Preſſure hurts the Origin of the Nerves; this is the moſt *common Cauſe* of Apoplexies, and proceeds from *Blood* in the Plethorical, from a *ſharp Serum* in the Hydropical and Leucophlegmatical, and from an atrabilious Acrimony in the Melancholic, the Scorbutic, and the Podagric. Violent Paſſions of the Mind, and intenſe Study, are prejudicial to theſe. BOERHAAVE.

There are *three Degrees* of an *Apoplexy*; the *firſt* is, when the vital Fluids are, by the Force of violent Diſtenſions, driven from

from the lower and outward Parts of the Body, to the external Parts of the Head, and to the Brain and its *Meninges*, by the *Carotid Arteries*; whereby their Veſſels are expanded, and the free Circulation through them impeded. While this Stagnation of the Blood continues, the external and internal Senſes are aboliſhed; and as the Stoppage goes off they are gradually reſtored. Such are the Fits that *Hypochondriacal* and Hyſterical Perſons are ſubject to. [The like will happen ſometimes from violent Reaching to vomit, and from a vehement Fit of Coughing.]

The *ſecond Degree* is, when the Stagnation continues ſo long that the *Serum* oozes through the Veſſels, and falls upon the Sides of the *Medulla Oblongata* or *Spinalis*, and ſo ſtops the Influx of the *nervous Fluid*, and produces a *Hemiplexia* or a *Palſy*.

The *higheſt Degree* is, when the fine Veſſels of the *Pia Mater* are broke, and the extravaſated Blood occupies the *Baſis* of the Brain.

The *firſt* may be cured by timely Bleeding: The *ſecond*, though it does not ſuddenly kill, yet it generally renders the Patient infirm ever after. The *third* is almoſt always mortal. HOFFMAN.

The *immediate Forerunners* of an Apoplexy, are Trembling, Staggering, a Giddineſs in the Head, a *Vertigo*, Dimneſs of Sight, a Stupor, Sleepineſs, Forgetfulneſs, Noiſe in the Ears, more deep and laborious Breathing, the Night-Mare, *&c.*

A *ſlight Apoplexy* goes off in a profuſe, equal, roſcid, warm Sweat; a large Quantity of thick Urine, by the *bleeding Piles*, the flowing of the *Menſes*, a *Diarrhœa*, or a *Fever*. If it is more *ſevere*, it uſually terminates in a *paralytic Diſorder*, and is ſeldom curable; but always leaves behind it a great Defect of Memory, Judgment, and Motion. BOERHAAVE.

Bleed in the Arm to xij Ounces, and then in the *Jugular* to vij Ounces, immediately after which, give ℥iſs, or ℥ij. of emetic Wine. SYD. Or,

1. ℞. *Vin. Antimonial.* ℥ij. *Oxymel. Scillit.* ℥j. *M. F. Hauſtus.* Or,

2. ℞. *Tart. Emet. gr.* vij. *F. una Doſis.* BOERH.

[Phyſicians are greatly divided in their Opinions, with regard to Vomiting; but in a *cold*, *phlegmatic*, *pituitous*, or *ſerous* Apoplexy, a ſtrong Vomit, as *Heiſter* obſerves, is neceſſary.]

Apply a large ſtrong *Bliſter* to the Neck, hold the Patient upright in Bed, and let the Spirit of *Sal Ammoniac*, highly rectified, be held to his Noſe. SYDENH.

Let there be ſtrong Fictions of the Head, Feet, and Hands, and let the Patient be carried upright, backwards and forwards, about

about the Room, by two ſtrong Men; for by ſuch an Agitation I have known ſeveral brought to their Senſes. As alſo by Scarifications of the *Sinciput* and *Occiput*. Strong Bliſters ſhould be applied to the Head, Neck, Back, and Calves of the Legs. *Sharp Clyſters* ſhould be thrown up into the Body, which have a Tendency to excite the Patient, and to cauſe a *Revulſion*. HEISTER.

3. ℞. *Pulp. Colocynth.* ʒſs. *Fol. Tabac.* ʒiſs. *Aq.* ℥x. *incoctis, admiſce Sal. Gemm.* ʒij. *M. F. Clyſma acre.* BOERH.

Shaw adviſes, *during the Fit*, to bleed largely in the Arm, or rather in the *Jugular*, to apply ſtrong Volatiles to the Noſe, to give a large Doſe of *Sal. Volat. Oleoſ.* in ſome convenient Water; to blow ſneezing Powders up the Noſe.

4. ℞. *Pulv. Aſari. Rad. Hellebor. alb. an.* ʒj. *F. Sternutatorium; cujus parum in Nares, mediante calamo, infletur frequenter.*

As alſo to rub the Temples with ſpirituous Cephalic Mixtures.

5. ℞. *Aq. Hungar. Spir. Lavend. comp. Sal. Volat. Oleoſ. an.* ʒj. *Tinct. Caſtor. Ol. Succin. an.* ʒſs. *M. & cum hac Miſtura benè fricentur Tempora & detonſum Caput.*

Likewiſe to blow into the Mouth and Noſtrils, the Smoak of Tobacco from an inverted Pipe, and to apply, if neceſſary, [which I think can be never] a hot iron near the *Vertex* or *Occiput*. SHAW.

The Reaſon why *Emetics* are uſed in an *Apoplexy*, is from the *painful Senſation* that is cauſed by ſtrong Vomits and Purges, and the evacuating Faculty wherewith they are endowed. PITCAIRN. [Are not *Cathartics*, therefore, more preferable? For it is well known, that in ſtraining to vomit, the Blood is forced ſtrongly into the Head, the very Part from which a Revulſion ought to be made.]

6. ℞. *Pil. ex Colocynth. ſimplicior.* ℈j. *vel* xxv. *gr. Diſſolve in Aq. Alex. ſimp.* ℥j. *Syr. è Spin. Cervin.* ʒvi. *vel.* ℥j. *M. & repetatur quoties Opus fuerit.*

The following Clyſter will be likewiſe proper for the ſame Purpoſe:

7. ℞. *Decoct. com. pro Clyſter.* ℥ix. *Vin. Antimonial. Syrup. è Spina Cervin. an.* ℥ij. *M. F. Enema.*

Sydenham preſcribes a Spoonful of compound Spirit of Lavender, to be taken two or three Times during the *Paroxyſm*; but in my Opinion, no Kind of Cordial ought to be given, till Evacuations of all Kinds have preceded. A Seton

A Seton may alſo be applied to the Neck, with no common Advantage. PITCAIRN. [We have an Inſtance of a Boy, in the *Med. Eſſays of Ed.* who had entirely loſt his Memory by an Apoplexy, occaſioned by a Fall from a Horſe, who was perfectly cured by a *Seton.*]

To prevent a Return, let the Patient take ℈ij. of *Pil. ex Colocynth. cum Aloe*, every third Day, at Four in the Morning, and ſo go to ſleep.

8. ℞. *Conſ. Flor. Lavend. Roriſmarin.* an. ℥j. *Conſ. Flaved. Aurant.* ʒvj. *Nuc. Moſchat. condit. & Zinzib. condit.* an. ℥ſs. *Theriac. Androm. Vet.* ʒij. *Spec. Aromat.* ʒiſs. *cum q. ſ. Syr. Cortic. Aurant. F. Electarium capiat ad Magnitudinem Caſtaneæ manè & ſero, ſuperbibendo Vini Albi* ℥ij. SYDENH.

Or the following:

9. ℞. *Valerian. Sylv. Pæon. Mar.* an. ʒij. *Rad. Contrayerv. Serpentar. Virgin.* an. ʒſs. *Dictamn. Alb. Viſc. Quercin.* an. ʒj. *Croc. Spec. Aromat.* an. ʒſs. *Cinnab. Antimon.* ℥ſs. *Conſerv. Flaved. Aurant. Nuc. Moſchat. condit. Succ. Kerm.* an. ℥ſs. *Ol. Cinnam. gutt.* vi. *Syr. è Cort. Aurant. q. ſ. M. F. Electarium ſumat. quant. N. Moſchat. ter quaterve quotidie, ſuperbibendo cochl.* v. *Julep. ſequent.*

10. ℞. *Aq. Alexeter. ſimp.* ℥vi. *Aq. Piperit. Spir.* ℥ij. *Syr. Caryophyl.* ʒvi. *Spir. Lavend. comp.* ℥ſs. *M. F. Julep.* SHAW.

The Patient ſhould not be too free with generous Liquors, but live much upon Water-gruel, Barley-broth, and Chicken-broth.

11. ℞. *Ambr. griſ.* ʒſs. *Ol. diſtil. Sem. Aniſi, Cinnam. Nuc. Moſchat.* an. *gutt.* ij. *Ol. Caryophil. gutt.* j. *Sacchar. in Aq. Flor. Aurant. Solut.* ℥iv. *F. ſ. a Tabellæ, quarum capiat unam ad Libitum.*

On the Days in which Purging is omitted, he may be allowed Chicken, Lamb, and ſuch like Food of eaſy Digeſtion. SYD.

Thoſe who have a Diſpoſition to this Diſeaſe ought never to go to Bed with a full Stomach, nor to lie with their Head low. ARBUTH.

Thoſe who have once had a Fit of the *Apoplexy*, are very liable to be ſeized with it again; and if they are *plethoric*, the beſt *Preſervative* is *Bleeding*, once in three Months, and uſing themſelves to a *ſpare* Diet; taking Medicines which ſtrengthen gently, and abſtaining from Cares, and all intenſe Applications of the Mind; not neglecting *Iſſues* and *Setons*, nor the drinking ſuitable Mineral Waters.

Of

Of the Palsy.

A *PALSY* is a lax Immobility of any Muscle, not to be overcome by the Will of the Patient. Sometimes the Sensation of the Part is absolutely abolished, and sometimes there remains a dull Sense of Feeling, with a Kind of Tingling therein.

It may be caused by all things that bring on an *Apoplexy*; that render the Nerves unfit to transmit the animal Spirits; that hinder the Entrance of the arterial Blood into the Muscle. Hence the Nature of a *Paraplegia* or *Hemiplegia*, and the Palsy of a particular Part, may be understood.

Hence a *Palsy* may proceed from an Apoplexy, an Epilepsy, extreme and lasting Pains, Suppressions of the usual Evacuations, Translations of the morbific Matter in acute Distempers; whatever distends, distorts, compresses, or contracts the Nerves, strong Ligatures, Luxations, Fractures, Wounds, Gangrenes, inflammatory and other Tumors of the Coats of the Nerves, in the *Ganglia* or the Nerves themselves. Extreme Heat, violent Cold, *mineral Effluvia*, and the too frequent Use of hot Water.

Palsies of the Heart, Lungs, and Muscles serving for Respiration, are soon fatal; of the Stomach, Bowels, and Bladder, from internal Causes, very dangerous; of the Face is bad, and easily changes to an *Apoplexy*.

If the Part is cold, insensible, and wastes away, it seldom admits a Cure; if attended with a violent Convulsion, and great Heat of the opposite Part, it is very bad.

The *Regimen* in this Disease ought to be warm, attenuating, consisting of spicy and cephalic Vegetables, such as create a feverish Heat, because it is necessary to dispel the Viscosity. Soapy Vegetables are best, and such as consist of an acrid, volatile Salt and Oil, Mustard, Horse-radish, *&c.* Stimulating by Vomits; Sneezing; relaxing the Belly; promoting Sweat by such Motions as can be used, or other Means; by strong Friction, *&c.*

Bleeding is to be used or omitted, according to the Symptoms which affect the Brain; it relieves in any inflammatory Disposition of the Coats of the Nerves. ARBUTH.

The *Cure* of the *Palsy* is to be attempted by *Attenuants* and *Discutients*, such as aromatic, cephalic, nervous, and uterine Vegetables; their fixed and volatile Salts, as also by their Oils; *Soaps* made of their Oils and Salts; the strong scented Parts of Animals; the Juices, Spirits, Oils, and Tinctures of Insects; fossile Salts, metallic Crystals, and Medicines compounded of these.

Likewise by Things which *stimulate strongly*, and which, by exciting a tremulous and convulsive Motion of the Nerves, drive out the impacted Matter; to this Class, Sternutatories and Emetics chiefly belong, *especially if often used at first.*

By *Purging* with warm, opening, aromatic Vegetables; with acrid Fossils; with *mercurial* and *antimonial* Preparations; in a large Dose, and repeated successively for several Days, by the Means of which a copious and lasting *Diarrhœa* may be excited.

By filling the Vessels of the Body with drinking a large Quantity of the *Attenuants* above-mentioned, and then by exciting a greater Motion and Sweat by the Vapours of Spirits set on fire.

Outwardly, *Frictions* may be used, either dry and hot, till the Part is red; or with Spirits endued with a stimulating Virtue; or with nervous Oils, Liniments, Balsams, or Ointments; vapour, or immersive Baths; acrid, aromatic, and drawing Plaisters; Cupping, Scarifications, Blisters; whipping the Part with Rods; exciting a slight Inflammation with Nettles, and the like. BOERHAAVE.

Let the Patient take *Pil. ex Colocynth. cum Al.* ℈ ij. every other Morning, for six Times; and afterwards let him take, for a Month together, the Quantity of a Nutmeg, thrice a Day, of the following *Electuary:*

1. ℞. *Conserv. Coch. Hortens.* ʒ ij. *Conf. Lujul.* ʒ ij. *Pulv. Ari comp.* ʒ vi. *cum. q. s. Syr. Aurant. M. F. Electuarium.*

After which let him drink six Spoonfuls of the following Water:

2. ℞. *Rad. Raphan. rustican. raspat.* ℔ ij. *Fol. Cochlear. Hort. M.* xij. *Fol. Menth. Salv. Nasturt. aquat. & Becabung. an. M.* vj. *Sem. Coch. Hortens. parum contus.* ℔ ss. *Nuc. Mosch.* ʒ ss. *Vin. alb.* xij. *distillentur Organis communibus; & eliciantur solummodo* ℔ vj. *pro Usu.*

And let the Parts affected, and the *Spina Dorsi*, be anointed Morning and Evening, with the following Ointment:

3. ℞. *Unguent. Nervin.* ʒ iij. *Spir. Lavend. comp. & Spir. Coch. Hortens. an.* ʒ iss. *M.* SYDENHAM.

But, as since the Alteration of the Dispensatory, the *Ung. Nerv.* and *Spir. Coch. Hort.* are left out, the following Oil may be used in its stead:

4. ℞. *Ol. Succin. & Sassafras, an.* ℈ j. *Ol. Rosmarin. Majoran. & Lavend. an.* ʒ j. *Ol. Caryophyl. Nuc. Mosch. an. gutt.* xv. *Ol. Cinnam. gutt.* x. *M.*

Likewise,

Likewiſe, inſtead of the above Electuary, the following may be ſubſtituted, as being very efficacious to the ſame Purpoſe:

5. ℞. *Conſ. Cochl. Hortenſ.* ℥iſs. *Abſinth. Roman. Conſerv. Flaved. Aurant. an.* ℥j. *Angel. condit. Nuc. Moſchat. condit. an.* ℥ſs. *Theriac. Androm.* ʒiij. *Pulv. Ari comp.* ʒij. *cum. q. ſ. Syr. Aurant. M. F. Electuarium, de quo ſumat* ʒij. *bis vel ter in die.*

After briſk Purges, as in the *Apoplexy*, the following *Electuary*, inſtead of either of the above-mentioned, if they will not do.

6. ℞. *Æthiop. mineral.* ℥j. *Gum. Guaiac. Cinnab. Antimon. an.* ℥ſs. *Rad. Valerian.* ʒiij. *Caſtor* ʒiſs. *Sal. Volat. Ammon. Sal. Succin. an.* ʒj. *Conſerv. Cortic. Aurant.* ℥ij. *Ol. Caryophyl. Succin. Saſſafras, an. gutt.* iv. *cum q. ſ. Syr. è Cort. Aurant. F. Electuarium; capiat Quant. N. Moſchat. ter in die.*

After each Doſe may be taken a Glaſs of White Wine, mixed with the *Vinum Amarum* of the New Diſpenſatory, except in a Morning, and then the *Vin. Amar.* is beſt diluted with Water.

Sometimes l. or lx. Drops of compound Spirit of Lavender, on a Lump of Sugar, may be taken by Way of Variety; or,

7. ℞. *Rad. Valerian. Sylveſt. pulveriſat.* ℈ij. *Cinnab. Antimon.* ℈j. *M. F. Pulvis, manè & veſperi ſumendus.*

In groſs and moiſt Conſtitutions, the following Infuſion may ſometimes be proper:

8. ℞. *Sem. Sinap. contuſ.* ℥ij. *Cinnam. contuſ.* ʒiij. *Vin. alb.* ℔ij. *infunde frigidè. Colaturæ adde, Spir. Lavend. comp.* ℥iij. *M. capiat. Coch.* iv. *ter in die.*

Harris aſſerts, that the *Chio Turpentine* has admirable Effects in this Diſeaſe, after this Manner:

9. ℞. *Terebinth. è Chio* ʒiij. *ſolv. in Vitell. Ov. immiſcendo Syr. Caryophyl.* ℥j. *Aq. Alexeter. ſimp.* ℥iv. *M. F. Hauſtus.* To be taken every Morning for four Times.

He alſo obſerves, that he has given ʒvi. or ℥j. of *Venice Turpentine*, diſſolved in the ſame Manner, and made into a Draught, not only in the *Paly*, but alſo with good Succeſs in the *Gout* and *Rheumatiſm.*

Heiſter, among other Things, recommends *Sage-Tea* to be drank ſeveral Times in a Day, as a very uſeful thing; and *Eleoſaccharum* of Cloves or Cinnamon. Externally, *Boerhaave* adviſes the following *Fume:*

10. ℞. *Maſtich. Oliban. Succin. an* ℥ſs. *M. F. Pulvis.*

Take a Drachm of this, and ſprinkle it upon a live Coal, and receive the Fume with hot Flannel, with which rub the Parts ſtrongly.

When the Parts affected are flaccid,

11. ℞. *Spir. Lavend. comp.* ℥iij. *Spir. Sal. Ammon.* ʒij. *Tinct. Caſtor.* ʒiv. *Aq. Caſtor.* ℥vi. *M. Perfricentur partes cum hâc Miſturâ.*

In a *Palſy* of the Tongue, *Allen* affirms, *Juice of Sage* alone reſtores the Speech; and he ſays he has made Uſe of the following Gargle with Succeſs:

12. ℞. *Folia Salviæ, Roſmarin. an. Manip.* j. *Hyſſop. Puleg. an. M.* ſs. *Sem. Staphid. agr. Sinap. an.* ℥ſs. *Coque in q. ſ. Aq. Fontan. ad* ℔j. *Colatur. add. Succ. Salv. depurat.* ℥ij. *Oxymel. Scyllitic. Aq. Reg. Hungar. an.* ℥j. *Syr. Caryophyl.* ℥iij. *M. F. Gargariſma.*

Let the Patient hold two Spoonfuls in his Mouth for ſome Time, and then ſpit it out, and repeat the ſame often in a Day. *Shaw* ſays, *Bleeding in the Jugular* is excellent in this Caſe, if the Strength will allow it; after which an *Emetic* is to be given; that Bliſters greatly aſſiſt, as well as warm aromatic Bitters; as alſo a Drachm of *Spir. Lavend. comp.* dropt upon Sugar or Crumbs of Bread.

Cephalic Drops may be given freely in every Species of a *Palſy*, thus:

13. ℞. *Spirit. Volatil. aromatic.* ʒiij. *Spir. Lavend. comp.* ʒij. *Tinct. Caſtor.* ʒj. *M. Capiat. gutt.* xl. *frequenter, è quovis vehiculo appropriato.*

The Bark and Wood of *Guaiacum*, Saſſafras, and Muſtard Seed, infuſed in Wine or Ale, for conſtant Drink, is likewiſe very ſerviceable.

The Palſy of the *Eaſt-Indies*, mentioned by *Bontius*, is called by the Natives *Beribery*, which ſignifies a Sheep; becauſe when a Patient is firſt ſeized with it, he lifts up his Legs like that Animal when he walks. The Symptoms are a ſpontaneous Laſſitude of the whole Body, a Deprivation of the Senſe and Motion of the Hands and Feet, with a Stupor, and a tingling Senſation, as if they were numbed with Cold. It likewiſe affects the Patient's Voice in ſuch a Manner, that he can ſcarcely be heard when he ſpeaks. All which ſeem to take their Riſe from a cold tenacious Humour. It continues a long while, and is never mortal, unleſs it affects the Muſcles of the Breaſt and Throat, and then the Patient will be ſuffocated.

In the Cure the Patient ſhould not be confined to his Bed, but walk or ride, or uſe any ſtrong Exerciſe, with ſtrong Frictions of the affected Parts; which ſhould alſo be anointed with the Oils of Cloves and Mace, mixt with the Oil of Roſes. Half Baths are likewiſe good, made with the Herb called *Lagondi*, which has a Leaf like Arſmart, and has a ſweet aromatic Smell: But if the *Petroleum* of *Achin* can be got, to anoint the Hands and Feet with, the Patient will be relieved to a Miracle. The Decoction of the Roots of *China* and *Sarſaparilla*, as alſo of *Guaiacum-Wood*, are of very great Service, with gentle Purges between whiles, of the Aloetic Kind. Bleeding is always prejudicial, and therefore muſt always be omitted. The Relics of this Diſeaſe may be carried off by Sudorifics and Diuretics.

A Courſe of Electrification, for ſome Weeks, has been known to have cured ſome, even inveterate, Palſies, though it has failed in others.

Of the Epilepsy, *or* Falling Sickness.

SOmetimes this Diſeaſe comes on ſuddenly, and unawares; but it oftner gives Notice of its Acceſſion, by ſome preceding Symptoms; the Chief of which are, a Laſſitude of the whole Body, a heavy Pain of the Head, with ſome Diſturbance of the Senſes, unquiet Sleep, unuſual Dread, Dimneſs of Sight, a Noiſe in the Ears; in ſome there is a violent Palpitation of the Heart, a Puffing or Inflammation of the *Præcordia*, a ſtopping of Reſpiration, a murmuring Noiſe in the Belly, fœtid Stools, a Flux of Urine, a Refrigeration of the Joints: In others, there is a Senſe, as it were, of a cold Air aſcending from the extreme Parts to the Heart and Brain.

Then they fall ſuddenly on the Ground, (whence the Name of the *Falling Sickneſs*,) the Thumbs are ſhut up cloſe in the Palms of the Hands, and are with Difficulty taken out; the Eyes are diſtorted or inverted, ſo as nothing but the Whites appear; all Senſation is ſuſpended, inſomuch that by no Smell, no Noiſe, nor even by pinching the Body, can they be brought to themſelves; they froth at the Mouth with a hiſſing kind of a Noiſe, the Tongue is lacerated by the Teeth, and there is a ſhaking or trembling of the Joints.

However, the *Convulſions* vary, as well as the Defect of the Senſes, both in Degree and Kind; for ſometimes, inſtead of

convulsive Motions, the Limbs are all stiff, and the Patient is as immoveable as a Statue. In Infants the *Penis* is erected; in young Men there is an Emission of *Semen*, and the Urine very often streams out to a great Distance.

At length there is a Remission of the Symptoms, and the Patients come to themselves after a longer or shorter Interval; then they complain of a Pain, *Torpor*, and Heaviness of the Head, and a Lassitude of all their Joints.

These Fits are more frequent or seldom, or longer or shorter, according to their different Causes. Some return on certain Days or Hours, or even Months, according to the *Quadratures of the Moon*, but especially about the *New* or *Full Moon*; in *Women* chiefly about the Time of *Menstruation*; and what is most remarkable, often upon a very slight Occasion; for Instance, any sudden Perturbation of the Mind, as a Fright, Anger, sudden Joy, intense Application, strong Liquors, excessive Heat or Cold, or venereal Exercises.

As to the *Prognostics*; in *Boys*, this Disease terminates about the *seventh*, the *fourteenth*, or the *seventeenth* Year, that is, about the Time of *Puberty*: In Women, about the *fourteenth*, *viz.* the Time of *Menstruation*. Likewise it has been found by Experience, that *chronical Epilepsies* have spontaneously ceased by the Change of Place, Diet, and Way of Life. Sometimes a *Quartan Ague* will put an End to an *Epilepsy* and *Convulsion Fits*. It is also remarkable, that the *Itch*, or any other *cutaneous Distemper*, such as the Small-Pox, Measles, Miliary Eruptions, *&c.* will either abate the Violence, or quite stifle the Disease.

The Patient therefore need not despair of a *Cure*, if the Disease is not of long standing, the Fits short, the Disorder not hereditary, and the Years advancing to the Time of Puberty; or if it proceeds from a Fault in the *Primæ Viæ*, from *Worms*, from a bad *Regimen*, or from a subcutaneous Disease ill cured. Nor is the Case desperate if the Epilepsy be slight, and when the Fit is foreseen by a Sensation of cold Air, rising from the extreme Parts to the Back, *Præcordia*, and Head, and also when it is ushered in by Anxiety, by Want of Strength, and a Propensity to vomit; or when the Senses are not quite abolished in the Time of the Fit, or when it comes on in the Night, without the Incurvation of the Thumbs.

It is a bad Sign if the Epilepsy makes its first Attack after the twenty-first Year, but much worse if the Fits grow more frequent; for then the Animal Functions are often destroyed, and not only the Memory, Wit, and Judgment are impaired, but the Patient grows stupid and foolish. It sometimes ends

in

in Melancholy or Madneſs. When it turns to a Palſy or Apoplexy, it is mortal. HOFFMAN.

The *Epilepſy* is extremely difficult to be cured in Adults, but in Children it is the reverſe. Bliſters laid to the back Part of the Head are of great Uſe, a little before the Paroxyſm is expected: and the Time may more certainly be foreknown, as this Diſeaſe is influenced by the *Moon*, and attends upon its *Phaſes*, eſpecially the *New* or *Full Moon*. The moſt proper Medicines to correct the Juices, ſeem to be *Native Cinnabar* and *wild Valerian Root*. A Drachm of which may be given Morning and Evening for three or four Months; and afterwards, two or three Days before the New and Full. Or,

1. ℞. *Rad. Valerian. Sylveſtr. pulveriſat.* ℥ij. *Cinnab. Nativ. optimè trit.* ℥ij. *M. F. Pulvis manè & veſperi ſumendus.*

However, it muſt not be forgot, that this Diſeaſe owes its Origin to ſo many different Cauſes, and is bred in ſo many different Conſtitutions of the Body, and the ſame Remedy which ſucceeds in one Caſe often fails in another; and therefore different Medicines are to be tried, eſpecially on Adults. And great Regard muſt be had to the Times in which the Paroxyſms uſually return, in order to effect a Cure. MEAD.

If the *Veſſels are full of Blood*, or it is carried with too great an Impetuoſity towards the Head, then bleeding in the Ankles will be proper, or Leeches applied to the Hæmorrhoidal Veins. This often happens to hypochondriacal or hyſterical Perſons, to the Melancholic, and Women with Child. Sometimes it will be proper to bleed in the *Jugulars*; or to apply Cupping-glaſſes with Scarification to the Neck, and Parts near the Head.

If it has its Origin from a *ſharp, impure Serum in the Head*, or in the Membranes and Veſſels, as in *cachectical* or ſcorbutical Perſons, or thoſe who have been inconſiderately cured of œdematous Swellings in the Feet, old Ulcers, or Iſſues dried up; the driving in of the Itch, Scabs, or the ulcerating Humour of a *ſcald Head:* Then the *Cure* may be attempted by *Cathartics*, by Purifiers of the Blood, by evacuating the impure Humours with Setons, Iſſues, Cauteries, and Bliſters.

If it proceeds from *violent Pain*; as, for Inſtance, from a Stone ſticking in the *Ureter*, from the Tooth-ach, Ear-ach, or Spaſms of the Stomach and Bowels, then Clyſters of Oil of Sweet Almonds, or the like, are to be adminiſtred, with anti-epileptic Medicines.

If in *Children* it proceeds from *Gripes*, or the *breeding of Teeth*, nothing is better than to cleanſe the *Primæ Viæ* from Filth,

Filth, by Milk-Clysters, with a little *Venice Soap* dissolved in them, and inwardly an epileptic Powder with *Cinnabar*; or with Extract of Rhubarb, and made into an Electuary with *Syrup of Roses and Manna*; or Musk, given to two Grains in a suitable Draught, is excellent in Childrens Fits.

If from *Worms*, after Antileptics and soft oily Things, *Anthelmintics* must be given, such as *Tansey*, *Garlick*, *Camphire*, *Assa Fœtida*, *Worm-seed*, *Mercurius Dulcis*, and *Æth ops Mineral.* [Or *Powder* of *Tin*, or *Aurum Musivum.*]

When the Fits return at certain Periods, or at the Quadratures of the Moon, a Clyster or a Vomit will be proper first of all, of half a Drachm of *Ipecacuanha*, in a Decoction of Raisins.

In the Time of the Fits, too free a Use of Volatiles, spirituous Liquors, and strong Smells are hurtful, as causing the Humours to flow too much to the Head: The best Method is to place the Patient in an erect Posture, and to rub the Hands and Feet pretty briskly.

The best Drink is Water, which will mitigate, if not cure, the Symptoms.

When the Disease is caused by *external Violence*, and thence an Extravasation of Humours in the Head, *Cinnabar* reduced into an impalpable Powder, and given in large Doses with other *Cephalics* and *Diaphoretics*, has a kind of *specific Virtue*. Outwardly, the following Liniment is excellent:

2. ℞. *Axungiæ Porcin.* ℥j. *Ol. Nuc. Moschat. expres.* ℥ ss. *Ol. Rosmarin. Lavend. & Rut. an.* ʒj. *M. F. Linimentum, & inunge Nucham & Spinam Dorsi.*

When the Patient is so happy as to foresee the Accession of the Fit, then let him have immediate Recourse to *Clysters*, and Frictions of the lower Parts. HOFFMAN.

A Milk Diet alone has cured an inveterate *Epilepsy*. CHEYNE.

Misleto cures an *Epilepsy*, as sure as the *Bark* an intermitting Fever. The Dose to grown Persons is half a Dram or more, in Powder, every sixth Hour, drinking after it a Draught of a strong Infusion of the same Plant. If to every Ounce of the Powder, a Dram of *Assa Fœtida* be added, the Medicine will be still more effectual. COLEBATCH.

Crato's Method of giving Native *Cinnabar*, is as follows:

3. ℞. *Cinnab. nativ. optimè trit.* ℥ ss. *Coral. ppt. Marg. ppt.* ℈j. *Croc.* ℈j. *Fol. Aur.* No. xv. *M. F. Pulvis.*

The Dose is a Scruple in a *cephalic Julep*, Or thus,

4. ℞. *Visc. Quercin. Rad. Valerian. Sylv. Rad. Pæon. an.* ʒj. *Ras. Ebor. Corn. Cerv. an.* ℥ iss. *Cinnab. nativ.* ℥j. *M. F. Pulvis.*]

Barbette

Barbette affirms, he cured a Girl in the following Manner:

5. ℞. *Castor. Sal. Tartar. an gr.* iv. *Resin. Jalap. gr.* vj. *Aloes Succotrin. gr.* ix. *Ol Majoran. gutt.* ij. *M. F. Pil.* No. vj. *deaurentur.*

After this one purgative Dose, he ordered the following Draught twice a Day:

6. ℞. *Sapon. Hispan. albiss.* ʒss. *coq. in Lact. Vaccin.* ℥iij. *pro Haustu.*

Pitcairn prescribes thus:

7. ℞. *Rad. Valerian. Syl. Cort. Peruv. an.* ℈j. *Succin. ppt.* ℈ss. *M. pro Dosi, quæ detur ter in die horis Medicis.* Or,

8. ℞. *Lumbr. terrestrium lotorum, igne vel sole exsiccat. & pulverisat.* ℈j. *paucis cedit.* Or,

9. ℞. *Rad. Serpentar. Virgin.* ℈j. *Rad. Valerian. Sylv. gr.* xxv. *Coral. rubr. ppt. gr.* xij. *M. pro Dosi, qui iisdem horis exhibeatur ex Syr. Caryophyl.*

Cinnabar of Antimony is greatly celebrated for the Cure of this Disease, and may be taken from four Grains to a Scruple, in Conserve of Rosemary Flowers.

If the Disease is inveterate, give the following Pills for a Month:

10. ℞. *Castor. Gum. Ammoniac. ad. gr.* viij. *Rad. Valer. Sylv.* ℈ss. *Sal. Tartar. gr.* vij. *Tinct. Castor q. s. massa Pilularis pro una Dosi.*

On every seventh Day a Cathartic should be given; and sometimes, instead of the Castor and the Gum, Filings of Steel may be substituted.

Ferreus and *Jachinus* affirm, they have cured many *Epilepsies* with a simple Decoction of Guaiacum, giving six or eight Ounces of it twice a Day; and the secondary Decoction of the same for their ordinary drink. This Decoction should be continued xxx or xl Days, to which may be added, Male Piony Root, or something of the same Kind; and every Dose may have a few Drops of the Spirit of Vitriol added thereto.

Fuller is very profuse in the Praise of the following *Electuary*, but says no more of it than it deserves:

11. ℞. *Cort. Peruv. pulv.* ℥vj. *Rad. serpent. Virg. pulv.* ℥ij. *cum q. s. Syr. Flor. Pæon. vel Pæon. comp.* [*vel Caryophil. rub.*] *F. Electuarium molle.*

It

It is a moſt excellent *Anti-epileptic*, and a moſt certain Remedy, as I have learnt by Experience. The Doſe (after proper Evacuations) to Adults, is a Dram, Morning and Evening, for three or four Months, and afterwards it muſt be repeated three or four Days before the New and Full Moon.

Mead has an Electuary againſt the *Vertigo* and *Epilepſy*, much of the ſame Nature.

12. ℞. *Cort. Peruv. pulv.* ℥j. *Rad. Valerian. pulv.* ℥ij. *Syr. Cort. Aurant. q. ſ. M. F. Electuarium.*

The Doſe, after proper Evacuations, is a Dram Morning and Evening, every Day for three Months; and then it is to be repeated three or four Days before the New and Full Moons.

After all, there is no Medicine that can be depended more upon than Musk; for it is an excellent Remedy in all Diſeaſes of the Nerves, particularly *Cramps*, *Convulſions*, *Vertigoes*, and *Epilepſies*. Ten Grains may be taken, Morning and Night, made up into a Bolus; if the ſame Quantity of Factitious Cinnabar be added to each Doſe, it will not be the worſe. We have an Inſtance of the Cure of a deplorable *Epilepſy*, in the *London Medical Eſſays*, by Electricity.

Of St. Vitus's Dance, *and other Convulſive Diſorders.*

THE *Cauſe* of theſe Diſeaſes does not lie in the Head, as in the *Epilepſy*, but in the *Medulla Spinalis*, and the Nerves proceeding therefrom. Hoff.

St. Vitus's Dance is a ſort of a Convulſion, which *Boys* and *Girls* are ſometimes ſubject to, at the Age of ten Years, to the Time of Puberty. It diſcovers itſelf firſt by a kind of Lameneſs, or an Inſtability of one of the Legs, which they draw after them in a ridiculous Manner, nor can they hold the Arm of the ſame Side ſtill for a Moment; for if they lay it on their Breaſt, or any other Part of their Body, it is preſently forced away from thence by a convulſive Motion, whether they will or not. If they are deſirous of drinking, before they can bring the Cup to their Mouth, they uſe a thouſand odd Geſticulations, like a *Mountebank*; for they cannot bring their Hand in a direct Line to their Mouth, but it is forced this way and that, till at length, if they have the good Fortune to hit the Mark, they throw the Liquor down their Throat as greedily as if they deſigned to raiſe Laughter in the Spectators. Sydenh.

In

In a *convulsive Paroxysm* the Limbs are strangely agitated with various different Postures and Motions; sometimes the Hands are put behind them as if they designed to sit upon them, and soon after they seem to be beating the Air; then their Legs will be drawn hither and thither, as if they were dancing some *antic Dance*. Sometimes they will bend their Backs like a Bow, at the same time raising their Breast as high as they can; then their whole Body will grow stiff, and as immoveable as a Stone. They generally keep on their Legs without falling; yet some will grovel on the Earth like epileptic Persons, and will weep, laugh, gnash their Teeth, gape with their Mouths, put out their Tongues, roll their Eyes, and whirl their Heads about in a strange Manner.

After the Fit, some are inexpressibly weak; some faint away, others fall into a deep Sleep; in others, again, the Fit is terminated with Eructations, Wind, Vomiting, and throwing out Plenty of Water. Very often a Mucus distils from the Nose, or Blood issues from thence, or from the *Uterus* or *hæmorrhoidal Veins*. Some, in coming to themselves, make a great Clamour, and the like.

These Persons have generally unquiet Sleep, and full of Dread and Terror, an uncertain Appetite, their Bodies generally a little costive; they sweat with Difficulty, but are subject to great Passions of the Mind. The Accessions of the Fits keep *exact Pace with the Phases* of the Moon. I have known some afflicted only certain Months in the Year. In Women they precede or accompany the Eruption of the Menses. They are most frequent and worst after Meals; and are easily excited by the Passions of the Mind.

The Fits are generally preceded with a Coldness of the Feet and Limbs, or a Kind of tingling Sensation; which also affects the *Os Coccygis*, and like cold Air ascends up the *spinal Marrow*; there is a distended flatulent Pain in the left *Hypochondrium*, and such a Constipation of the Body, that neither Wind nor Excrements can make their Exit, nor will the *Anus* admit a Clyster-pipe; or, if it does, the Clyster and Excrements are thrown up by Vomit. The Bladder is likewise so affected, that no Urine can be made, or at least, but little, and thin and white. In others, the Accession begins with Yawning, Stretching, Anxiety about the Heart; a hard, unequal, contracted Pulse, the Heart-burn, Nausea, Vomiting, Palpitations of the Heart, Difficulty of Swallowing, Pains of the Head, Teeth, Noise in the Ears, Giddiness, *&c.* and then come on the Convulsions.

Though

Though this is a terrible Diſeaſe, it never kills ſuddenly. When it is recent, the Perſon young, and otherwiſe of a good Conſtitution, there is the greateſt Hopes of a ſpeedy Cure. If the uſual Evacuations of Blood by the *Uterus* or Hæmorrhoids are ſuppreſſed, their Return will either mitigate or cure the Diſeaſe. On the contrary, if the Humours are thick and impure, the Suppreſſion obſtinate, their Temperament inclining to great Senſibility, the Age advanced, or the Diſeaſe hereditary, or become habitual, the Cure is difficult. Sometimes, through ill Management, it degenerates into an *Epilepſy* or *hypochondriac Melancholy*; and thoſe that die of it, go off *apoplectic*.

St. Vitus's Dance is generally called a *Convulſive Diſorder*, but I look on it to be rather *Paralytic*, and to take its Riſe from a Relaxation of the Muſcles, which, being unable to perform their Functions in moving the Limbs, ſhake them irregularly by Jerks. It is moſt commonly a ſlight Evil, and generally ſeizes weak Habits of Body; *Girls* more frequently than *Boys*, and ſeldom *Adults*. Wherefore I never found it difficult to be *cured* by the *cold Bath* and *chalybeate Medicines*. Some Phyſicians have tried, in vain, to cure theſe Diſorders by *Sydenham*'s Method, for want of attending to their periodical Return, according to the *Phaſes* of the Moon. I knew a luſty Girl, about five Years of Age, whoſe Convulſions were ſo ſtrong and frequent, that her Life was almoſt deſpaired of: After Evacuations, and other Medicines, ſhe continued well for a few Days, but was ſeized again at the Full Moon with a moſt violent Fit: After this, the Diſeaſe kept Pace with the Tides; ſhe lay ſpeechleſs during the whole Time of Flood, and recovered upon the Ebb. This continued till the New Moon; then a dry Scab, the Conſequence of a Bliſter on the Crown of her Head, broke, from whence ran a conſiderable Quantity of limpid Serum, and this Running being encouraged, the Fits returned no more. However, I ordered her three or four Purges with *Mercurius Dulcis*, about the New and Full of the Moon. MEAD.

To *cure* the *St. Vitus's Dance*, take away about viij Ounces of Blood, more or leſs, according to the Age of the Patient; the next Day give half, or ſomething more, of the common purging Potion, according to the Age, and in the Evening the following Draught:

℞. *Aq. Alexeter. ſ.* ʒiſs. *Spir. Lavendul. comp. gutt.* xxx. *Theriac. Androm.* ʒj. *Tinctur. Thebaic. gutt.* viij. *M. F. Hauſtus.*

Let

Let the cathartic Potion be repeated thrice, every other Day, and the same Draught in the Evening. After which bleed again, and repeat the Cathartics three or four Times; and this Course may be pursued to the third or fourth Time.

On the Days free from Purgation, let the Patient take the following Things:

2. ℞. *Conserv. Absinth. Maritim. & Flaved. Aurant. an.* ℥j. *Conserv. Anthos.* ℥ss. *Theriac. Androm. Veter. & Nuc. Mosch. condit. an.* ʒiij. *Syr. è Succ. Citr. q. s. F. Electuarium de quo capiat ad Magnitudinem Nuc. Moschat. manè & Horâ quintâ pomeridianâ superbibendo Vini sequentis Cochlearia* v.

3. ℞. *Rad. Pæon. Enul. Campan. Imperator. & Angel. an.* ℥j. *Fol. Rut. Salv. Beton. Chamædr. Marrub. alb. & Summitat. Cent. min. an. M.* j. *Baccar. Juniper.* ʒvi. *Cort. duor. Aurant. Incidantur, & infundentur frigidè in Vini Canarini* ℔vj. *coletur tantummodo Usûs Tempore.*

[He then orders a *Julep* of Things which are not now kept in the Shops, instead of which, the following may be substituted, *viz.* from twenty to fifty Drops of the *Tinctura Valerian. Volatil.* in a Glass of White Wine or Water; or, rather, in two or three Spoonfuls of Castor Water, sweetened with Syrup of Clove July Flowers; it is to be taken every Night at Bed-time.]

Apply to the Soles of the Feet, *Emplastrum è Caranna.* For Fear of a Relapse, at the same Season of the next Year, or a little sooner, in which the Distemper appeared, Bleeding should be again repeated, and Purging two or three Times. SYDENHAM.

I cured two Girls of this Distemper with the Expression of *Millepedes* and the *Peruvian Bark*, after Bleeding, and a gentle *Cathartic.* ALLEN. [This is an excellent Remedy.]

As to the *Cure* of other *Convulsive Disorders*, if the Patient is plethoric, or the Pulse great, it must be begun with *Bleeding*, either in the Arm or Foot; and, if Occasion require, it must be repeated two or three Times, but not till the Fit is over. The *Air* should be dry and serene, with constant Exercise; the Aliment should be easy of Digestion, and all hot, spirituous Liquors should be avoided. The constant Drink should be the Decoction of *Scorzonera Roots*, with Shavings of Hartshorn, or Whey, or the *Selters Mineral Waters*. *Pediluvia* are likewise proper of River-water, Wheat Bran, and Chamomile Flowers. They should be used pretty warm and deep, at the Time of going to Bed, and afterwards Sweating should be promoted.

The

The Patient's Body, if coſtive, muſt be kept open with *Manna*, or with *oily Clyſters*; and if the *Fomes* of the Diſeaſe is judged to be in the *Primæ Viæ*, it will be proper, at the *Changes of the Moon*, to give a *Vomit* with *Manna*; that is, an Ounce of Manna, with two or three Grains of *Tartar Emetic*.

I have known *convulſive Diſorders* cured by the *free Uſe* of cold Water alone.

If, about the Time of *Puberty*, this Diſeaſe proceeds from too early or exceſſive Coition, or violent Paſſions of the Mind, all Things which cauſe a Commotion in the Fluids muſt be avoided, ſuch as Aromatics, ſharp Purges, Emetics, ſpirituous Liquors, inordinate Motions of the Body or Mind, and all heating Things in general. On the contrary, the Diet ſhould be ſoft, emollient, and nouriſhing; ſuch as Cow's or Aſs's Milk, or Whey; as alſo Baths of ſweet Water mixed with Milk. Likewiſe Jellies, and Decoctions of *Scorzonera*, Barley, Hartſhorn, Ivory Shavings, and Viper's Fleſh, for ordinary Drink, and Chocolate.

If it proceeds from *Worms*, the *Cure* depends on their being killed and expelled out of the Body: But all *Anthelmintics*, or *Worm-Medicines*, are not to be made Uſe of in this Caſe; ſuch as *Garlick*, *Vitriol*, *Copper*, *Aloes*, *ſharp Purges*, and *Mercurials*, becauſe if they are given inconſiderately, they are hurtful to the Nerves. It will be better to uſe *Clyſters*, made of Milk, ſweet Things, and Oil; as alſo *Liniments* of a Purging Quality applied to the Navel and *Abdomen*. Inwardly may be taken *Semen Santonici*. If *Mercurius Dulcis* is given with a *Cathartic*, it will be neceſſary firſt of all to let the Patient take a few Spoonfuls of Oil of Sweet Almonds.

If it is cauſed by a *Suppreſſion of the Menſes*, *Emmenagogues* and hot Medicines are to be forborne; but Bath Waters and Bleeding will be proper; as alſo *Pediluvia*, if made pretty warm; hot Infuſions of Balm-Flowers, and Flowers of the Lime-tree, Tincture of *Caſtor*, abſorbent Powders, Antiſpaſmodics, and Anodynes.

If from a Stoppage of the hæmorrhoidal Flux, beſides Bleeding and the above Remedies, *Leeches* applied to the *Anus* will be of very great Advantage.

If with the Stoppage there is a Swelling of the Spleen, there is nothing better than Preparations of Steel; the following vinous Infuſion is likewiſe proper:

4. ℞. *Rad. Zedoar. Cichor. an.* ℥ ſs. *Summitat. Centaur. min. Flor. Hormin. an. P.* iv. *Cort. Citr. recent.* ℥ ſs. *Paſſul. min.* ℥ ij. *Vin. Rhenan.* ℔ ij. *M. Digere leni calore & reſerva ad uſum.*

Some-

Sometimes it arises from the driving back a *customary Sweating*, or from the *repelling itchy, ulcerous Excretions*, and other *Defædations of the Skin*; in this Case the Acrimony of the *Primæ Viæ* is to be absorbed, and the spasmodic Strictures to be abated by the following Powder:

5. ℞. *Pul. Vis. Quercin.* ʒij. *Rad. Valerian. Syl. Ocul. Cancror. ppt. Calc. Antimon. an.* ʒj. *Cinnab. Nitr. Croc. Extract. Castor. an.* ℈j. *M. F. Pulvis, cujus Dosis est Scrupulus unus.*

In the Evening may be taken the following *antispasmodic Pills:*

6. ℞. *Extract. Millefol. Florum Chamæmel. Fol. Card. Benedict. an.* ʒj. *Theriac. Androm. Succin. Cinnab. an.* ℥ ss. *Croci. gr.* xii. *Ol. Chamæmel. gutt.* viij. *M. F. Pilulæ.* A Scruple or half a Dram is a Dose.

Laxatives should likewise be frequently given; as also *Ass's Milk*, mixed with *Selters Waters*, or Whey for some Weeks, with now and then a Dose of *Manna* and *Cream* of *Tartar*.

In all *convulsive Disorders*, all Things should be avoided which raise a Commotion in the Blood, such as hot, spirituous, volatile, astringent, and narcotic Medicines. In the Observations of the Medical Society of *London*, we have an Account of a deplorable Convulsive Case being cured by Electricity.

Of the Convulsive Asthma.

An *Asthma* is an impeded and very laborious Respiration, attended with an unspeakable Anxiety, and a Straitness about the *Præcordia*, hindering the free Circulation of the Blood through the Lungs, arising from Variety of Causes, and not without Danger of Suffocation.

There are several Sorts of *Asthmas:* One is, Difficulty of Breathing proceeding from *Corpulency*, and a very full Habit of Body; and is most apparent after violent Motion; but this is a slight Disorder, and free from all Danger. The next is the *pituitous Asthma*, attended with a *moist Cough*, and the bringing up pituitous Matter; it attacks the Patient at all Hours, and in all Positions of the Body, and is owing to a Plenty of a *viscid Mucus*, stuffing the *Vesiculæ* of the Lungs, and hindering the free Ingress and Egress of the Air through them. Another is owing to the *convulsive Contraction* of the

Parts

Parts designed for Respiration, and proceeds from various Causes both within and without the *Thorax*; and this is called the *dry flatulent* or *convulsive Asthma*.

The *first Approach* of an *Asthma* was well known to *Aretæus*, who describes it thus; there is a Heaviness of the Breast, a Slowness to perform accustomary Labours, difficult Breathing when going up a Hill, the Patients grow hoarse, cough, and are troubled with frequent Eructations; they cannot sleep, and are scarcely warm in their Beds. As the Disease grows worse, the Cheeks look red, the Eyes grow prominent as if the Patients were strangled; they snore or wheeze while waking, but much more when asleep; they are fond of cold Air, and never care to be long in the House; they keep themselves in an erect Posture, and seem to suck in the Air with open Mouth; they are troubled with sweating about the Neck and Forehead; then comes on a violent Cough, and the Patient brings up a little cold frothy Matter. As they draw in their Breath the Neck swells, and the *Præcordia* are pulled upwards; the Pulse is small and quick; if it increases, the Patient is in Danger of Suffocation; but if it grows better, the Fits are seldom, and greater Plenty of Matter is coughed up, the Urine is more plentiful but without a Sediment, the Voice grows clearer, the Sleeps longer than are necessary, the *Præcordia* are set at Liberty; a Pain sometimes passes to the Shoulders, the Breathing is slow and gentle, but with a Sort of Wheezing. ARETÆUS.

The longer this Disease continues, the more sharp and violent all the Symptoms become. The Patient's Body grows more costive, and the Urine is thin and watery; most commonly the Feet swell, then the Hands, Face, and Back: There is a Numbness of the Arms, the Countenance is wan and livid, or of a leaden Colour. Then comes on a little Fever, which grows worse in the Evening; the whole Body is cachectic, with an œdematous Swelling of the Feet; there is a Dropsy of the Breast, or an *Ascites*, or *Anasarca*; at least there is a Palsy on one Side, or of the Arm; or instead thereof a Palsy of the Eye-lids. This Disease is likewise called by some, a *suffocating Asthma*; by others the *nervous Asthma*.

When the Disease is *recent*, and is owing only to the *spasmodic Contraction* of the *Præcordia*, there are Hopes of a *Cure*; especially if the Matter of the Gout, Ulcers, and *Exanthemata* are sent back to their proper Seats. When the *Menses* or *Hæmorrhoids*, which were stopped, return, it yields Relief, and, if the Disease was not too far advanced, perfect Health. If it is inveterate, or ill managed, it brings on a Dropsy of the Breast, Obstructions of the lower Belly, œdematous Swellings of the Feet, a Cachexy, and

and an universal Dropsy. In general, all covulsive *Asthmas* portend a sudden Exit, or Suffocation, especially if there is a *Polypus* of the Heart: If it continues long, then the Patient will die of the Dropsy; in which Case it will be soon fatal; when there is a slow Fever, an unequal intermitting Pulse, a Palsy of the Arms, a continual Palpitation of the Heart, little Urine, a *Syncope* or Swooning, then Death is at hand. Some are carried off by an Inflammation of the Lungs, and the more grievous the Disease, the more languid the Pulse. The *Asthma* in old Persons, continues till Death: That which is caused by a Dislocation of the *Vertebræ* cannot be cured till they are reduced. The more violent the Accession, the longer it lasts, and the oftener it returns, with a greater Danger of Suffocation.

In the *Paroxysm*, because the Body is generally bound, and the Wind and Humours are carried upwards, the speediest Assistance is from emollient and carminative Clysters. Thus:

1. ℞. *Flor. Chamæmel. M.* j. *Bacc. Laur. Juniper. an.* ℥j. *Sem. Fœnicul. dulc. Cumin. an* ℥ss. *decoque in q. s. Aquæ Fontanæ ad* ℥x. *Colaturæ add. Ol. Anis.* ʒij. *Ol. Olivar.* ℥iss. *Sal. commun.* ʒij. *M. F. Enema.*

If there is Occasion, it may be repeated two or three Times. Afterwards use Frictions of the Feet, which have an incredible Efficacy; also let them be put into warm Water; for the Feet are almost always cold. When there is a violent Spasm about the *Præcordia*, hot Fomentations are necessary, or Bladders filled with hot Milk, and applied to the Part affected; likewise *nervous Liniments* are very useful, rubbed in with a warm Hand.

2. ℞. *Unguent. ex Althæâ* ℥j. *Ol. Mac. per express. Ol. Amygd. dulc. Spir. Lavendul. comp. Spir. Sal. Ammoniac. an.* ʒij. *M. F. Linimentum.*

These must be applied to the Neck, Shoulders, Muscles of the *Thorax*, and the *Spina Dorsi*.

Internally, *Antispasmodics* should be given, with gentle *Diaphoretics*, thus:

3. ℞. *Tinct. Valerian. Volat.* ʒiij. *Tinct. Croc. Tinct. Castorei, Spir. Lavend. Comp. an.* ʒj. *Capiat. gutt.* xl. *è Cyatho Vin. Canarienſis.*

And this is all that needs to be administred in *the Fit*.

Out of the Fit, if it proceeds from too great a *Congestion of Blood about the Breast*, or from a *Polypus of the Heart*, *Bleeding in the Foot* will be proper, as also *Scarifications*; in a Suppression

of the Hæmorrhoids, Leeches should be applied to the *Anus*; as also gentle Laxatives to cleanse the *Primæ Viæ:* Likewise bodily Motion, slender Diet, and soft Drink. If there are hypochondriacal or flatulent Symptoms, then gentle Laxatives will be the more necessary, together with Clysters. When the *Menses* or *Hæmorrhoids* are suppressed, nothing is better than the *Bath* Waters, both for bathing and drinking; or the Waters of *Selters* taken warm, and mixed with Milk.

When the *Asthma* proceeds from the *driving back some impure Matter from the Skin*, or from the *drying up of Ulcers*, and the Humour is translated to the nervous Parts of the Breast, then gentle Diaphoretics will be necessary to send it back to the *Superficies* of the Body.

4. ℞. *Pulv. è Chel. Canc. comp.* ℥ij. *Calc. Antimon. Nitr. Succin. pulverisat. Rad. Valerian. Syl. an.* ℥j. *M. F. Pulvis.* Half a Drachm of which is to be taken every other Morning, in Bed, with the Addition of two Grains of Camphire, to every Dose.

After which the Patient may drink Tea, made of Balm or Elder, or Lime-tree Flowers, with the Leaves of Scordium, or Veronica and Fennel Seeds, or any thing else of the same Kind. Remedies compounded of *Sulphur* are likewise very efficacious in driving back the morbific Matter to the Skin, tho' outwardly they are hurtful in cutaneous Diseases.

The *Balsamum Sulphuris Simplex* is a good Preparation in this Case, and may be taken from six to ten Drops.

Nor are gentle Laxatives, nor mild Diuretics, to be omitted in this Case. If a gouty Matter is the Cause, *Pediluvia* are necessary to recall it back to the Feet. Hoff.

The Returns of the Fits are to be observed and guarded against, by moderate Evacuations, as *Bleeding*, *gentle Vomits*, *Laxatives*, and sometimes *Cathartics*. But every thing that heats the Blood should be carefully avoided, especially about the usual Times of the Paroxysms; because there is generally then a *lurking Fever*, which ought not to be exasperated by *heating Food* or *Medicines*. Upon this Score *Hippocrates* advises to *abstain from Clamours and Anger*. And *Van Helmont* observed, that *asthmatic Paroxysms return more frequently in Summer than Winter*. For which Reason, the proper Medicines in this Disease, besides those above-mentioned, are such as are *cooling*, and at the same time *promote Urine*; as *Vinegar of Squills*, *Spirit of Nitre*, *Gas Sulphuris* *, which is a Water saturated with the Fumes of Sulphur. Mead.

* This is the *Aqua Sulphurata* of the *New London Dispensatory*.

When

When this Disease arises from *œdematous Swellings of the Feet* driven back by a *sudden Fright*, *violent Passions*, *too great a Refrigeration*, or a *febrile Accession*, then it will be necessary to dislodge the *viscid Serum* from the Breast, which I have seen done by the following Powder:

5. ℞. *Calc. Antimon. Corn. Cerv. ust. an.* ʒj. *Cinnab. Antimon.* ℈ij. *Sulph. Antimon. Aurat. gr.* iv. *M. Capiat.* ℈ij. *superbibendo infusum Theiforme.*

The Feet are likewise to be well rubbed, not forgetting Clysters and very gentle Laxatives.

In a *dry Asthma*, proceeding from *Fumes of Lead*, an Air replete with *Exhalations from Quick Lime*, or the *Vapours of Pit-coal*; Milk, Cream, Oil of Sweet Almonds, Emulsions of *Spermaceti*, the Fat of Animals used internally and externally, answer every Purpose.

It will be necessary to observe, that all *sharp Purges* compounded of *Jalap*, *Gamboge*, *Coloquintida*, *Elaterium*, *Escula*, &c. as well as antimonial Vomits, are to be carefully shunned, because they dispose the *Genus nervosum* to *spasmodic Affections*. However, in a *cachectic Asthma*, when the Breast is full of *serous viscid Humours*, I usually give a small Dose of *Tartar Emetic* with *Manna*. In which Case, likewise, *Sulphur of Antimony* is of excellent Service; and Squills are greatly recommended for their inciding and resolving Virtue. Dr. *Hess* says, he has cured the *Asthma* with *Powder of Squills*; it is given from four to twelve Grains, and its Efficacy in this Case is attested by several.

It is a common and very great Error in *œdematous Swellings of the Feet*, to give *drastic Purges*, for they only serve to hurry the Patient out of the World. HOFFMAN.

I have found a small Degree of a *Dropsical Anasarca* attended with much greater Want of Breath than the greatest Swellings of the *Ascites*; so that when I find a sudden Fit of an *Asthma* attack a Person without any other visible Cause, if I find the *least Fulness of the Face or Ancles*, I never hesitate to fix upon this, especially if I find along with it a Pulse so much suppressed as scarce to be felt. A Lady, after being bled and frequently vomited, and using several *Anti-asthmatics*, had a Thickness of her Face, which made me examine her Ancles, and they bearing the Impression of my Finger a little, shewed me the first Degrees of the *Anasarca*; in which I never doubt the *cellular Substance* of the Lungs being more or less affected the same way, and so compressing more or less the Extremities of the *Bronchia*, between which [cellular Substance] they lie, and so

stopping the whole Circulation, which few other Causes can do, unless a *general Spasm*, or the *Bronchia* universally stuffed with Matter, or Water or Matter in the two Cavities of the *Thorax*. I was so positive about the Cause, in my Patient, that when every Body looked upon her as dying. and her Pulse was scarce to be felt, I gave her ten Grains of *Mercurius dulcis*, by which her Breath and Pulse were restored in the Morning; afterwards purging her two or three Times, and repeating the *Merc. dulc.* twice or thrice, at the Distance of a few Days, both the *Swelling* and *Asthma* were quite subdued. As *Diuretics* and *Quicksilver* have been famed for their Service in the *Asthma*, have we not Reason to suspect, that an *Anasarca*, so obsequious to these Remedies, is often the Foundation of the *Asthma?* Simson *in Med. Essays.*

In the removing of this Disease, I do not remember an Instance of failing in the Cure of any Person who has applied to me for Relief. I make Use of this easy Remedy.

6. *An Ounce of* Quicksilver *is to be taken every Day, at what Time the Patient pleases, and a Spoonful of the* Gas *of* Sulphur, *in a large Draught of Spring Water, at Five o'Clock in the Afternoon and at Bed-time.* Dover.

Bleeding in the Paroxysm ought never to be practised; [this may justly be doubted;] because it renders the Disease more obstinate; nor will it be serviceable out of it, unless the Patient is *plethoric*, or the Blood is thick, or there is a *Polypus* in the Heart, or the usual Evacuations of Blood are stopt; and then, as a *Preservative*, it ought not to be omitted at the *Equinoxes*. And it will always be best to give a Clyster before the opening of a Vein.

Diuretics are necessary, but those made of *lixivial Salts* and *Acids* exasperate the Cough; *Powder of Millepedes*, *Turpentine Medicines*, and *Balsam* of *Sulphur of Antimony* are safe and beneficial.

7. ℞. *Millep. vivent.* cl. *contundantur in Mortario marmoreo, & add. Aq. Castor.* ℥iv. *Aq. Sem. Anis. comp.* ℥j. *in Colatur. dissolv. Gum. Ammoniac.* ℈s. *& deinde add. Vin. Crocei* ʒij. *Tinct. Valerian. syl. Volat.* ʒij. *Syr. Balsamic.* ℥j. *Capiat. Cochlear.* ij. *vel* iij. *bis terve in die.*

In a *spasmodic Asthma*, attended with the *Cardialgia*, and which proceeds from a *Cramp of the Diaphragm*, Liniments made of the Fat of Animals lately killed, the Grease of a Capon subtilized by the Heat of the Sun, or *Barbette*'s Saponaceous Plaister with Camphire, are much better than things of a hotter Naure.

Country

Country Air, and following the Plough, are beneficial to reſtore the debilitated Tone of the Lungs; and *Tea*, made with Hyſſop, Veronica, Ground Ivy, Liquorice, and Daiſy Flowers, cannot be enough commended. But ſweet Things, in every Kind of *Aſthma*, are hurtful, eſpecially in the *humid* or *ſerous*, and the *hypochendriacal*. HOFFMAN.

Of the MOIST, *or* PITUITOUS ASTHMA.

IF the Difficulty of Breathing is cauſed by *viſcid Humours*, it is called the *pituitous*, or *humoural Aſthma*, and chiefly differs from the former, with Regard to the Quantity of Phlegm that is thrown up. HEISTER.

An *Aſthma* is known by a quick and great Reſpiration, in which the *Diaphragm*, the *intercoſtal Muſcles*, and the Muſcles of the Abdomen, are violently moved, with a Kind of a ſnoring Noiſe and Wheezing. An *Orthopnœa* is the greateſt Difficulty of Breathing, in which the Patient cannot breathe unleſs ſitting, and in an erect Poſture of the Neck. In this, the Muſcles of the Breaſt labour greatly.

Take away ten Ounces of Blood, [ſee *Hoffman*'s Opinion above,] and the next Day give the common purging Potion, which muſt be repeated twice more on each third Day.

On the Days when Purging is omitted, preſcribe the following Things:

1. ℞. *Sem. Aniſ. ſubtiliſſ. pulv.* ℥ij. *cum q. ſ. Balſam. Locatelli, F. Pil. ex ſingulis drachmis*, vi. *cap.* iij. *mane & quinta pomeridiana, ſuperbibendo infuſi amari ſimp.* ℥iv. *calide.*

If the Symptoms ſtill continue, repeat the ſame Proceſs over again. SYD.

When there is a Wheezing, and the Spitting is viſcid,

2. ℞. *Aq. Cinnam. ſim.* ℥ij. *Aq. Cinnam. ſpir.* ℥j. *Oxymel. Scill.* ℥iij. *M. cap. Cochl.* ij. *ſæpius.* Or,

3. ℞. *Oxymel. Scillit.* ℥ij. *Aq. Fontan.* ℥ij. *Aq. Cinnam. Spir.* ℥ij. *M. capiat. Coch.* ij. *ter quaterve in die.*

Gum Ammoniac is in high Eſteem with moſt Phyſicians, which may be taken in Pills from a Scruple to half a Drachm, or in the celebrated Potion of *Brunerus*.

4. ℞. *Gum. Ammon. puriſſ.* ʒiſs. *vel* ʒij. *Solve in Aq. Fœnicul.* ʒiv. *& Vin. Rhenan.* ʒij. *dentur ſæpius Coch. tria donec reſpirandi Difficultas remittat.*

Dolæus thinks this Potion will be much mended with a Drachm of *Sperm. Cet.* and xxx or xl Drops of the *Thebaic Tincture*. *Etmuller* and *Pitcairn* ſay, ʒſs. or ʒj. of *Sperm. Cet.* alone, gives great Relief in the Fit. *Heiſter* directs *Purging* and *Emetics*, as alſo *Bliſters* applied to the *Legs*, and *Pediluvia*.

Hoffman would have the Patient to take, every Morning, ſix or ſeven Cups of the following Infuſion in the Manner of Tea, and ſweetened with Sugar-Candy:

5. ℞. *Fol. Veron. Hyſſop. an. M.* ij. *Dracuncul. M.* j. *Sem. Fœnic.* ʒij. *M.*

And a large Doſe of the following Powder every third Evening:

6. ℞. *Pulv. Liquorit.* ʒj. *Rad. Pimpinel. alb. Irid. Florentin. an.* ʒſs. *Balſ. de Capiv.* ʒſs. *M. F. Pulvis.*

Likewiſe the following laxative Potion every ten Days:

7. ℞. *Mann. elect.* ʒijſs. *Crem. Tart.* ʒiſs. *Aq. Fœnic.* ʒv. *Coque & ſolve leni calore. Colatur add. Ol. Aniſi gutt.* iv. *M. F. Potio.*

As alſo Bleeding thrice every Year, and drinking the *Selters*, and other mineral Waters.

Thoſe who chuſe to take *Pills*, may uſe the following, which are very efficacious:

8. ℞. *Gum. Ammoniac.* ʒij. *Scill. pulveriſat.* ʒj. *Sapon. Caſtil.* ʒiij. *Sacch. alb. q. ſ. M. F. Pilulæ ex ſingulis drachmis No.* x. *Cap.* iij. *manè & Horâ Somni.*

When *Paregorics* are required, as they often are, the following is excellent:

9. ℞. *Flor. Benzoin. Opii colat. an.* ʒi. *Camph.* ℈ij. *Ol. Aniſ.* ʒſs. *Spir. Vin. rectificat.* ℔ij. *Digere & cola.*

Adults may take from xx to c Drops, at Night going to Bed, in a Glaſs of Mountain or Sack.

Huxham judiciouſly obſerves, that many *Aſthmatics* are ſeized with a Fit when the Wind turns *eaſterly*, and then Bleeding will be convenient, nay, abſolutely neceſſary. If the Difficulty of Breathing is remarkably great, then gentle *antiphlogiſtic Purges*, *Gas of Sulphur*, Vinegar and *Oxymel* of Squills, taken with *Oxycrate*, *Hydromel*, or any ſmall ſubacid Liquor, will put an End to the Fit; likewiſe putting the Feet in a Bath of warm Water will be very uſeful. I knew, ſays he, an agreeable young Lady, who

who was wont to be ſeized with a Difficulty of Breathing a Day or two before Menſtruation, to whom this was a ſpeedy, certain, and conſtant Relief.

On the contrary, thoſe who are troubled with a *pituitous*, or *moiſt Aſthma*, muſt be cured with Bliſters, Volatiles, ſtronger Purges, and ſharper Detergents.

Pitcairn was uſed to order *Reſin of Jalap* and *Mercurius dulcis*, when Purging was neceſſary, or the following Pills:

10. ℞. *Gum. Ammoniac. Diagryd. Reſin. Jalap. an.* ʒſs. *Sal. Succin. volat. gr.* v. *Elixir Aloes q. ſ. ut fiat Maſſa pilularis, pro unica Doſi.*

Compare this with the preceding Section.

Akenſide obſerves, that when there is nothing in the particular Caſe, which can render the repeated Action of Vomiting unſafe, he knows of no Medicine ſo effectual, for removing the *ſpaſmodic Aſthma*, as *Ipecacoanha*; which he has now for ſeveral Years been accuſtomed to give with this Intention: Where he has found the Patient in a violent Paroxyſm, he has ordered a Scruple of *Ipecacoanha* to be inſtantly adminiſtred, which failed not to procure great and immediate Relief. But in preſcribing for the *chronical* or *habitual* Indiſpoſition, he gives from three to five Grains every Morning, or from five to ten Grains every other Morning, according to the Degree of the Diſeaſe, and without particular Regard to any Paroxyſm; in which Method he has ſometimes perſiſted for a Month or ſix Weeks together. And though the Patients are apt to complain, both of the Nauſeouſneſs and the Fatigue attending it, yet, after a little Time, he has found them willing to acquieſce in it; or, where it had been laid aſide, deſirous to return to it. In a Doſe of five Grains the Medicine generally acts as an Emetic: On ſome Perſons, however, it has not that Effect, nor produces any Alteration in the Stomach beyond mere Sickneſs; which of courſe more frequently, indeed almoſt always, happens when only three Grains are given. Yet in theſe Inſtances he has found the Medicine equally uſeful, as in thoſe where it proved emetic. So that the Relief which it brings to the Aſthma does not depend on the Action of Vomiting, but ſeems owing to that general anti-ſpaſmodic or relaxing Property belonging to the *Ipecacoanha*, and of which its emetic Operation itſelf appears, with great Probability, to be a particular Conſequence. From a Variety of Caſes, where *Ipecacoanha* was effectual, when the uſual Methods had either failed, or had procured but temporary or ſhort Relief, he recites two of the moſt remarkable.

Concerning this Method, there are ſlight and vague Hints in ſeveral Authors, though they relate chiefly or ſolely to the *humoral Aſthma*. *Riverius* more particularly inſiſts on Emetics as proper in that Diſorder, and appeals to frequent Experience for their Uſe. His Reaſoning, indeed, about their Effects proceeds entirely upon a Suppoſition, that the Difficulty of Breathing has its Riſe from a Catarrh. But *Willis* rightly diſtinguiſhes the *convulſive* Species; which he imputes to the irregular Motions of the Animal Spirits.

This Diſtinction, however well founded, between the *humoral* and *ſpaſmodic Aſthma*, ſhould not ſo abſolutely take Place, as to exclude either of the two from being, in ſome Degree, complicated with the other; at leaſt Catarrhs naturally excite Spaſms in the Lungs; and though *ſpaſmodic Aſthmas* are commonly obſerved without any Catarrh, yet the Removal of them, eſpecially where *Ipecacoanha* is given, for this Purpoſe, ſeldom fails to be accompanied, or rather followed, by a conſiderable Expectoration. In other Caſes, where a Diſcharge of this Sort is neceſſary, and yet attended with more than ordinary Difficulty, nothing ſo effectually promotes it as a juſt Emetic. In the *confluent Small-Pox*, when the Patient was almoſt ſtrangled for Want of Spitting, Dr. *A.* has, on the Authority of *Sydenham*, given a Scruple of *Ipecacoanha* (inſtead of his antimonial Emetic) and after a Day or two repeated it with very great Benefit, from the Loads of Phlegm it brought up, too viſcid and tenacious to be effected by any other Method. But in the *humoral Aſthma*, this Impediment ſeldom proceeds to ſo great an Extremity; and more acceptable Medicines are generally ſufficient for the Patient's Relief.

Of a Cough.

THE *Cough* now under Conſideration is a primary *Diſeaſe*, which greatly diſorders the whole Body by its *Vehemence* and *Obſtinacy*. Its Cauſe is, a Flux of ſerous Humours from the outward Parts and Extremities of the Body to the Lungs, and is ſeldom without feveriſh Heats and Shiverings towards the Evening.

It is either *moiſt* or *dry*; the former afflicts the Phlegmatic, whoſe Fibres are lax and Muſcles ſoft, and who abound with ſerous and pituitous Humours. Women are more liable to it than

than Men; as alſo Infants, Boys, and old Men, more than thoſe in the Vigour of their Age. The *dry Cough* principally attacks the Hypochondriac, the Scorbutic, the Cachectic, and thoſe who are lean and ſlender, and ſubject to convulſive Diſorders, and whoſe Bodies likewiſe abound with a ſharp Serum.

The moſt violent of theſe Kinds of Coughs is the *Tuſſis convulſiva*, or *ferina*, whoſe Effects are ſo violent as almoſt to put the Patient in Danger of Suffocation: In Children, this is called the *whooping Cough*. Sometimes this is *dry* in the Beginning, or the Patient brings up a little thin *Serum*, more or leſs ſharp. Sometimes it is *moiſt*, and then, after a very laborious Fit, the Patient expectorates a ſublivid, and commonly a moſt tough *Mucus*. The extreme Parts grow cold, the Body is coſtive, the Urine and the vital Fluids are driven in greater Plenty and Force towards the Breaſt and Head; ſo that while the Paroxyſm laſts, the Face is red and turgid with Blood, the Veins ſwell, the Arteries beat quicker and ſtronger, the Eyes are ready to ſtart out of the Head, the Tears flow, the Eyelids ſwell, and ſometimes the Blood, after Sneezing, ſprings from the Noſe. Sometimes the very Veſſels of the Lungs burſt, and a Spitting of Blood enſues. Sometimes a Hiccup ſupervenes, and then at the ſame Time the Patient is affected with laborious Vomiting; ſome diſcharge their Excrements and Urine inſenſibly; and the Coughing of others is ſo violent as to cauſe Ruptures, eſpecially in Children. Nor muſt it be forgot, that an Apoplexy may proceed from hence, or a ſudden Loſs of Memory, or a Palſy of the Hands or other Members.

As to the *Prognoſtics*, a *dry Cough* often turns to a *moiſt*, by hurting the Digeſtion, and rendering the Patient cachectic. When a *moiſt Cough* becomes ſuddenly *dry*, and the Breaſt remains oppreſſed, we may conclude that a *putrid* or *hectic Fever*, or an *Exulceration* of the *Lungs*, are near at hand. In the convulſive Cough of Children there is Danger of a *Suffocation*, which Cough ſometimes happens, in difficult Dentition, and in the Meaſles. It ſometimes cauſes *Gibboſity* and *Ruptures* in Boys; in Women *Abortion*; in Adults a *Spitting of Blood* and a *Phthiſis*. Coughs that proceed from a *Schirrus* of the Lungs, or other *Viſcera*, are incurable; if from driving in of *Exanthemata*, or Breakings out of the Skin, it grows eaſy as ſoon as they are thrown out again. All Coughs attended with Loſs of Sleep are bad, as alſo that which is frequent, tedious, obſtinate, and proceeds from a Defluxion on the Lungs. On the contrary, a moderate Heat in the Night-time, with an equal breathing Sweat throughout the whole Body, a larger

Flux

Flux of Urine, and the Body open at the ſame Time, a more quiet Sleep, and an eaſier Expectoration, are certain Signs that the Diſorder is going off. HOFFMAN.

If the *Cough is recent*, and there is no Fever, nor other Signs of a *baſtard Peripneumony*; or if it is not the Conſequence of a *Pleuriſy*, or a *Peripneumony* ill cured, by a Neglect of ſufficient Bleeding, the Patient need only abſtain from Wine and Fleſh for ſome Days, and uſe the following Remedies at pleaſure:

1. ℞. *Balſam. Sulph. aniſat. gutt.* x. *inſtilletur fruſtulo Sacch. cryſtal. & bis vel ter in die devoretur.* SYDEN.

Recent Coughs, after Bleeding, are ſoftened by a Mucilage of Linſeed, or by any common Sweet-oil: But the Oils are made more efficacious by the Addition of a volatile alkaline Salt, in this Manner:

2. ℞. *Ol. Olivar.* ℥iſs. *Aq. fontan.* ℥vi. *Spir. C. C. gutt.* lx. *Syr. Pectoral.* ℥j. *Cap. Cochl.* iij. *vel* iv. *quartâ quâque Horâ.*

When the Obſtruction is of an older Date, oily Medicines are not only uſeleſs, but relax the Stomach, quell the Appetite, and increaſe the Diſorder. *Pringle.*

The Patient may alſo carry the following Lozenges in his Pocket, to be taken occaſionally:

3. ℞. *Sacch. cand.* ℔iſs. *coq. q. ſ. Aq. fontan. uſquedum adhæreſcat, extremis Digitor. tum add. Pulv. Glycyrrhizæ, Enul. campan. Sem. Aniſ. & Angelic. an.* ℥ſs. *Pulv. Irid. Florentin. Sulph. an.* ʒij. *Ol. chim. Aniſi* ♍ij. *F. Tabellæ.*

In the mean Time, let him uſe the following *Linctus:*

4. ℞. *Ol. Amygd. dulc.* ℥ij. *Syr. Capill. Ven. Violar. an.* ℥j. *Sacch. cand. q. ſ. F. Lohoch. de quo ſæpius lambat Bacillo Glycyrrhizæ quando Tuſſis urget.*

In a thin Defluxion *incraſſating Linctus's* may be uſed:

5. ℞. *Conſerv. Roſar. rub. Syr. Violar. & è Mecon. an.* ℥j. *Sem. Papav. alb.* ʒiij. *contundantur ſimul, & per Setaceum trajiciantur, deinde adde Ol. Nuc. Moſchat. expreſſ. gr.* vi. *F. Eclegma.*

The following is more efficacious:

6. ℞. *Conſerv. Roſar. rub.* ℥ij. *Syr. è Mecon. Violar. an.* ℥j. *Oliban. Maſtich. & Succin. an.* ʒj. *Ol. Nuc. Moſchat. per Expreſſionem, gr.* vi. *M. F. Lohoch. de quo lambat ſæpe.*

Likewiſe the Patient may take a Spoonful of this *Linctus* twice a Day, with eight or ten Drops of *Balſam. Sulph. Aniſat.*

If

If the Cough will not yield to theſe Remedies, then it will be to no Purpoſe to rely on *Pectorals*, eſpecially if there is a Fever along with it, or if it proceeds from a *Pleuriſy* or *Peripneumony*. For then it is to be cured by Bleeding and Purging, in the ſame Manner as the *Baſtard Peripneumony*. SYD.

If there is a *thick coagulated Mucus in the Bronchia*, then the Root of *Florentine Orris* is proper, or five or ſix Grains of *Powder of Squills*, with a little *Nitre*, or *precipitated Sulphur*, *Flowers of Sulphur*, and *Sperma Ceti*. Or,

7. ℞. *Balſam. Tolutan.* ʒſs. *Pulv. Rad. Irid. Florent. Enul. Campan. an.* ʒij. *Gum. Arab. Tragacanth. an.* ʒj. *Flor. Benzoin.* ℈ij. *Sacch. Cand.* ℔ſs. *Omnibus in Pulv. ſubtiliſſ. redactis, cum Mucilag. G. Tragacanth. q. ſ. M. F. Trochiſci.*

When there is a thin, ſalt, ſharp Defluxion, Jellies are proper, and a Decoction made of *Barley*, *Shavings of Hartſhorn*, *Viper-graſs Root*, and *Liquorice*; or the Decoction of Turpentine with Sugar; and above all Things, Oil of Sweet Almonds freſh drawn. Or,

8. ℞. *Ol. Amygd. dulc. Syr. Capill. Ven. an.* ʒj. *Sperm. Cet.* ʒiij. *Croc. gr.* xv. *M. F. Eclegma.*

When a *Tuſſis catarrhalis* affects the whole Habit or Body, with a Loſs of Appetite and a *Tabes*, the Cure muſt be attempted with *Aſſes Milk* or Whey, or Milk, with equal Parts of *Selters Waters*; [and eſpecially Riding.]

In a *moiſt*, *laſting*, *pituitous Cough*, the Body muſt be kept open with *Manna*, two Ounces at leaſt, diſſolved in any convenient Vehicle, to which may be added two Drachms of *Terra Foliata Tartari*, and a few Drops of *Oil of Aniſeed*. If the Stomach will not bear Laxatives, Clyſters muſt be uſed.

To promote an *equal Circulation of the Blood*, and to ſend back the *ſerous Humours* from the Breaſt to the ſubcutaneous Glands, hot pectoral Infuſions will be convenient, made of *Flowers of Mallows*, Violets, Leaves of Hyſſop, Sage, Fennel-ſeeds, Aniſeeds, and Cinnamon. Alſo the *teſtaceous Powders* with *Calx Antimonii*, *Cinnabar*, and a few Grains of Oil of Nutmegs by Expreſſion; as alſo Saffron; to which may be added Flower of Sulphur, if any ſcabby or itchy Matter has been driven in.

When the *Cough is outrageous*, Saffron mixed with Bezoardics is very friendly to the Breaſt; nor are *Storax Pills*, mixed with the aromatic Pills, leſs beneficial. [You may order about ſix Grains of the *Storax Pills*, with ℈j. or ʒſs. of the *Aromatic*,]

Aromatic,] and give them at Bed-time; in the mean while not neglecting the *Expectorants*, *Oil* of *Sweet Almonds* and *Sperma Ceti*. Likewiſe the *Thebaic Tincture*, mixed with Spirit of Hartſhorn, is not unuſeful for the ſame Purpoſe.

But the beſt Opiate, in this Caſe, is the *Elixir Paregoricum*; the Doſe for Children is from five to twenty Drops; for Adults, from twenty to an hundred, and upwards. It is peculiarly excellent for Children in the *Hooping Cough*, or *Chin Cough*.

Outwardly, I recommend the following Plaiſter, which I have found by Experience to be very efficacious:

9. ℞. *Myrrh. elect. Bdellii, Succini, an.* ℥ ſs. *Sperm. Cet. Axung. porcin. Ceræ, Minii, an.* ℥ ij. *Sapon. Venet.* ʒ iij. *Croci,* ʒ j. *Camphor.* ʒ ſs. *M. F. Emplaſtrum, quod Pectori, Collo, Spinæque Dorſi imponatur.*

In the Decline of the Diſorder, to *ſtrengthen the Stomach*, the following Electuary:

10. ℞. *Conſerv. Roſar. rub.* ℥ ij. *Conſerv. Anthoſ.* ℥ j. *Succin. ppt. Nuc. Moſch. an.* ʒ iij. *cum. q. ſ. Syr. è Cort. Aurant. M. F. Electarium, cap. quant. Nuc. Moſchat. bis terve in die.*

The Patient ſhould, as much as poſſible, breathe a temperate Air, ſhunning all ſalted and ſmoak-dried Meats, poignant Sauces, for they render the Blood and Serum ſharp and impure; he ſhould alſo abſtain from Malt Liquors, but more eſpecially acid Wines. The Drink ſhould be *Hydromel*; or, if the Patient is ſcorbutic, Water alone, the Cold being firſt taken off with toaſted Bread. The Vulgar pour hot Water upon Wheat Bran, and drink the Infuſion cold, not without Succeſs.

As to *Bleeding* in this Diſeaſe, it is neceſſary for thoſe who are full of Blood, and whoſe Veins are very prominent; or when the uſual Excretions of it are ſuppreſſed; it is alſo a good Preſervative, though the Perſon has paſſed his Seventieth Year. *Bliſters* may likewiſe be uſed, in obſtinate Caſes.

In the older and more ſtubborn Coughs, or in the firſt Stage of a Conſumption, when the Patient complains of Pains in his Side, Tightneſs of the Breaſt, or hot and reſtleſs Nights; I have truſted moſt to ſmall but repeated Bleedings, and to the Squill Pills of the *Edinburgh* Diſpenſatory. *Pringle.*

Expectorants, *ſweet Things*, and incraſſating Decoctions ſhould be uſed with Caution, for they relax the Lungs too much, if taken alone. In the *Tuſſis ſtomachalis* and *hypochondriaca*,

chondriaca, they ſhould be entirely omitted, leſt a *Cachexy*, or a *Dropſy* ſhould enſue.

In the *Tuſſis ferina*, or Cough of the moſt violent Kind, ariſing from the ſtriking in of *Exanthemata*, that is, Spots or other Breakings-out of the Skin, *Æthiops Mineral* is almoſt a divine Remedy; or Flowers of Sulphur, taken inwardly in the Evening, with *diaphoretic Antimony*. Likewiſe Frictions of the Feet and *Pediluvia*, are more uſeful to draw *Serum* from the Breaſt than *Bliſters*.

The *Hooping-Cough* of Children is only to be vanquiſhed by *Bleeding* and *Cathartics*, which muſt be of the gentleſt Kind, and given by Spoonfuls according to the Age. It is a moſt obſtinate and almoſt inſuperable Diſeaſe. SYD.

Sydenham rightly obſerves, that *Bleeding* in this *Diſeaſe* is greatly to be preferred to *Pectorals*; and *Harris* is of the ſame Opinion. All *oleous* and *mucous Remedies* I abſolutely condemn; for they increaſe the Diſeaſe; cure it, I am ſure they do not, however they may be authorized by the common Practice.

What I have found beneficial, by long Experience, is as follows: If there is an evident Sign of a *Plethora*, or the Spittle is tinctured with Blood, I always preſcribe *Bleeding*, and that more eſpecially if a *Febricula*, which is often the Caſe, requires it, or the Child in coughing looks black in the Face. I ſometimes repeat this, according to the Patient's Strength and Age. Soon after I give an Emetic of Oxymel of Squills, or the *Infuſion* or *Decoction* of *Ipecacuanha*; for this Cough partly proceeds from the Stomach; and a Paroxyſm ſcarce ever ceaſes till the irritating viſcid Phlegm is thrown up by Vomit. Nay, ſometimes there is ſuch a Quantity of Filth, as to require a Puke three or four Times.

Then the Body is to be looſened with *Rhubarb*, *alkaliſated Mercury* *, or Calomel; for the *mucous Sordes* muſt be carried off this Way, that it may neither taint the *Chyle* nor the Blood with Impurities; Likewiſe the Body too coſtive is prejudicial; for it brings on a *Febricula*, or aggravates the *Dyſpnœa*.

* The *Mercurius Alkalizatus* is an Invention of Dr. *Burton*'s, and is thus made: "Take two Parts of *Crabs Eyes* and one Part of *Crude Mercury*, and rub them in a Marble Mortar till the Globules of the *Mercury* diſappear." This was communicated to *Huxham* by Dr. *Cheyne*. *Huxham* ſays, he has experienced the Efficacy of this Preparation, in various Diſeaſes, a thouſand Times; particularly in a Lentor of the Blood, and Obſtruction of the Veſſels: For *Mercurials* prepared without a *ſaline Stimulus* are not only moſt efficacious in *intermitting Fevers*, but alſo in *Rheumatiſms*, *Pleuriſies*, and *Peripneumonies*, after the neceſſary Bleeding.

Nor

Nor are Evacuations all that is required; there is occaſion for *nervous* and *ſtomachic* Remedies, and ſuch Things as diſſolve the *Lentor* of the Blood. For this Purpoſe *Mercurials* and the *Peruvian Bark*, joined to *Stomachics*, are proper. Difficulty of Breathing, and an Oppreſſion of the Breaſt, are cured by a *Solution* of *Gum Ammoniac*, or the *Expreſſion* of *Millepedes* *. It will be neceſſary to appeaſe the Violence of the Cough with the *Paregoric Elixir* taken in *Diacodium*. But if a ſharp Humour diſtils into the *Larynx* or Lungs, it muſt be diverted with *Bliſters*.

This Diſeaſe will readily yield to theſe Remedies, which otherwiſe is ſtubborn enough, and not to be vanquiſhed but by Length of Time, and Change of Air. The *Specifics* of *Nurſes* and *old Women* are not worth a Ruſh; even the *Muſcus pyxidatus*, if it has any Virtue, has only a faint one of the *Peruvian Bark*: A Drug which, by diſſolving the *Lentor* of the Blood, and ſtrengthening the whole *nervous Syſtem*, ſo happily cures intermitting Fevers. And the periodical Return of the *hooping Cough* is often as certain as the Fit of an Ague, and is much of the ſame Nature: which is the more probable, becauſe both Diſeaſes are generally rife at the ſame Time, depend on the ſame Cauſe, and are cured by the ſame Remedies. HUXHAM.

Dr. *Burton* declares againſt Bleeding, Vomiting, and Purging in the *hooping Cough*, except in very urgent Caſes. If the Diſeaſe proceeds from tough, viſcid Phlegm, he ſays, the following Medicine has never yet failed:

II. ℞. *Extract. Cort. Peruv.* ʒiiij. *Camph. Pulv. Cantharid. an.* ℈j. *M.*

He gives eight or nine Grains of this Mixture to Children every third or fourth Hour, in a Spoonful of ſome Simple Water, or a Julep, in which a little *Balſam Capivi*, diſſolved in the Yolk of Egg, has been mixed. But if this Diſeaſe proceeds from a *ſharp thin Rheum*, it is not proper.

* Dr. *Cheyne* preſcribes the *Millepedes* thus:
℞. *Millep. in Vin. alb. demerſ. q. v. Exprime Succum & adde Sacchar. alb. q. ſ. ut fiat Syrupus.* This, given a Spoonful at a Time, infallibly cures a convulſive Cough.
Pitcairn ſays, there ſhould be xxv or xxx Millepedes to iv Ounces of Wine; and a Scruple of Gum Ammoniac, diſſolved in ij Ounces of Penny-royal Water, is a Doſe for Adults.

Of a Phthisis, *or Consumption of the* Lungs.

IF an *Ulcer of the Lungs* consumes them so far that the whole Habit of Body wastes away, it is called a *Consumption* of the *Lungs*.

This *Ulcer* may proceed from any Cause, which may detain the Blood in the Lungs, so as to change it into a purulent Matter.

The Causes may be referred,

I. To that Temperament of the Body which tends first to spitting of Blood, then to an Ulcer of the Part where the Blood has made its Way through. This consists,

In a Tenderness of the arterial Vessels, and in the *Impetus* of a more or less *acrimonious Blood*. This is known from a View of the tender and fine Vessels, and of the slender Make of the whole Body, a long Neck, a flat and narrow *Thorax*, depressed *Scapulæ*, the Blood of a bright red, thin, sharp, and hot, the Skin transparent, very white and fair, with a blooming red in the Cheeks; the Wit quick, subtle, and early ripe with regard to the Age, and a merry chearful Disposition.

In such a Debility of the Viscera as disposes their too tenacious Contents to produce Obstructions, Putrefactions, and to grow acrimonious, whereby the Vessels are corroded, first causing spitting of Blood, and then Ulcers. This is discovered by a slight *Febricula*, a little dry Cough, an unusual Heat, a Redness of the Lips and Mouth, a Flushing in the Face; which are most apparent when the new Chyle enters into the Blood; a Propensity to Sweating when asleep, a Weakness, a Shortness of Breath, encreasing upon the least Motion.

In that Age when the Vessels have attained their full Growth, and will not admit of any farther lengthening; when at the same Time the Blood increases in Quantity, Acrimony, and Force; which happens between the sixteenth, and thirty-sixth Year of the Patient's Age.

In an hereditary Disposition to this Disease.

These Dispositions to a *Phthisis* are hastened,

By a *Suppression of accustomary* Evacuations, especially the *sanguineous*; as the *Hæmorrhoids*, *Menses*, *Lochia*, Bleeding at the Nose, usual Blood-letting, chiefly in the Plethoric, and those who have lost a Limb.

By *any violent Shock of the Lungs*, by Coughing, Shouting, Singing, Running, violent Efforts of the Body, Anger, and Wounds.

By

By *ſharp, ſaline, aromatic Aliment, or Drink*, by the particular Manner of Living, by another Diſeaſe, whence the Quantity, Acrimony, Velocity, Rarefaction, and Heat of the Blood are increaſed. Hence it frequently happens from acute Fevers, the Plague, Small-Pox, and Scurvy.

II. Likewiſe this Collection of *Pus* may proceed from a *Peripneumony*, which terminates in an *Apoſtem*, and is known by the Signs proper thereto.

III. When there is an *Empyema* formed, it may corrode, deſtroy, and conſume the Lungs, and ſo produce the ſame Diſeaſe as if they were waſted away by an Ulcer generated in their own Subſtance. This is likewiſe known by its own proper Signs. *Boerhaave.*

The Sign of an *approaching Phthiſis* is a dry *Cough*, which may continue for ſome Months; whereas a *ſimple Catarrh* is attended with Spitting, and is but of ſhort Duration. *Vomiting*, or a Diſpoſition to vomit after Eating, excited by the above-mentioned Cough, is a moſt certain Sign of a *Phthiſis. Morton.*

It invades Perſons from eighteen to thirty-five Years of Age; the whole Body waſtes away. There is a *hectic Fever*, which is moſt apparent after Meals, and is known by the Quickneſs of the *Pulſe*, and the Redneſs or Fluſhing of the Cheeks: The Matter brought up by the Cough is bloody or purulent; if it is ſpit into the Fire, it yields an offenſive Smell; if into a Veſſel of Water, it falls to the Bottom. Syd. Though it is thick, it is not glutinous or tenacious, but fluid, and of different Colours, *viz.* Yellow, Green, but moſt commonly of an Aſh-Colour. *Morton.*

This Diſeaſe begins with a *ſlight Pain, moderate Heat*, and an uneaſy or oppreſſive Straitneſs of the Breaſt. When Blood is brought up by Coughing, it is generally of a florid, ſcarlet Colour, and frothy, and proceeds from the Lungs with a remarkable Noiſe. It is mixed with Fibres, Films, and ſmall Portions of arterial, venal, and bronchial Veſſels: The Pulſe is ſoft, ſmall, and undulating; the Breathing is difficult; and theſe Symptoms are preceded by a ſaltiſh Taſte in the Mouth. *Boerhaave.*

Blood is coughed up from the Lungs ſometimes without any Pain; and if there is a Veſſel broken, it moſt commonly flows out in a great Quantity at the firſt Eruption, and afterwards more ſparingly: In the Beginning it looks thin, pure, and florid, with a yellowiſh Froth; after a while it turns more pale and watery, with little Bubbles in it; and at laſt, it comes up with purulent Matter mixed with it. *Harvey.*

Spitting

Spitting of Blood is cured by copious Bleeding every third Day, to the fourth Time, or till the inflammatory Pellicle entirely diſappears. *Sydenham* adviſes the taking away ℥x. of Blood, to take the common purging Potion the next Morning, and at Night an Ounce of *Diacodium*. *Hoffman* likewiſe adviſes gentle Purging and *Pediluvia*, as alſo putting the Hand, into warm Water. For appeaſing the Orgaſm of the Blood, he thinks nothing better than Spirit of Vitriol, but more eſpecially the *Tincture* of *Roſes* acidulated therewith; *Morton* very judiciouſly prefers the *Peruvian Bark*. Refrigerating, thickening, ſtyptic lenient Remedies, uſed a conſiderable Time, are ſerviceable, with which may now and then be mixed the moſt lenient *Balſamics*. *Boerhaave*.

1. ℞. *Bol. Armen.* ℥j. *Pulv. Rad. Symphyt.* ʒij. *Terr. ſigillat. Lap. Hæmatit. & Sang. Dracon. an.* ʒj. *Sacchar. albiſſ. ad Pondus omnium. M. F. Pulvis ſubtiliſſimus, cujus cap.* ʒj. *manè, quinta pomeridiana & nocte, ſuperbibend. ſequent. Apozem.* ℥iv.

2. ℞. *Fol. Plantag. Rub. ſylveſt. & Millefol. M.* j. *coq. in Aq. ad* ℔iſs. *in colatur. diſſolv. Syr. Papav. errat.* ℥ij. *M. F. Apozem. vel cap. Cochlear.* iv. *ſequent. Tincturæ.*

3. ℞. *Flor. Roſ. rubr.* ʒvj. *Cort. intern. Querc.* ℥ſs. *Sem. Plantag. parum contuſ.* ʒiij. *Aquæ Fontan.* ℔ij. *Spir. Vitriol. q. ſ. ad levem Aciditatem, infundantur in Vaſe clauſo, Calore leni per* iv. *Horas: colatur. Adde Aq. Cinnamom. ſimp.* ℥iiij. *Sacchar. albiſſ. q. ſ. ut fiat Tinctura guſtui grata.* SYD.

Or when other Remedies have been tried in vain:

4. ℞. *Aq. Hordeat. Vin. rub. an.* ℔ſs. *Syr. Papav. errat.* ℥j. *Spir. Vitriol. fort. quantum Lingua ferre poteſt. M. F. Julep.*

Hoffman adviſes the following Powder, as preferable to every Thing elſe, in appeaſing the ſpaſmodic Strictures of the Lungs:

5. ℞. *Sem. Hyoſcyam. alb. Ocul. Cancr. an.* ʒj. *Nitr. gr.* xij. *Camph. gr.* j. *M. F. Pulvis.*

Mead's Pills may likewiſe be uſeful, as a Styptic.

6. ℞. *Alum. Rup. uſt. & pulv.* ʒiij. *Sang. Dracon. pulv.* ʒj. *Syr. alb. q. ſ. ut F. Pilulæ magnitud. medioc. Cap.* v. *primo mane & hora ſomni.*

A prudent Uſe of the Non-Naturals is likewiſe neceſſary, that may beſt oppoſe the Cauſe of the Diſeaſe, and chiefly a proper Aliment, and Manner of Living; a Milk-Diet is preferable to any other.

When the Cure is performed, it will be neceſſary, by Way of Prevention, to bleed once in ſix Months, for ſeveral Years together.

But if, by reaſon of the Violence of the Diſorder, the unſkilful Uſe of *Styptics*, or a Neglect of the Method of Cure above directed, there ſhould, after the Spitting of Blood, ariſe a Difficulty of Breathing, which continually increaſes, a wandering ſhivering Heat and Redneſs of the Cheeks, a dry huſky Cough, a ſlight hectic Fever, a preternatural Thirſt, a Weakneſs, or Senſe of Weight in the Breaſt, it is a Sign that the Wound from whence the Blood flowed, has already begun to change to Matter about its Lips. Then under the Cruſt of dried Blood *Pus* is formed, and this Collection degenerates into a *latent* VOMICA, and that being broken becomes an open Ulcer of the Lungs.

The Effects of an Ulcer of the Lungs thus formed, are generally theſe which follow; an Increaſe of the Acrimony and Quantity of the putrid *Pus*; a Dilatation and corroding Maceration of the Membrane or Bag in which it is contained; a Converſion of the Blood-Veſſels and the *Bronchia* into Pus; a purulent Conſumption of the whole Lungs, or of one of its Lobes; a continual dry Cough, or Spittle ſhook off by the conſtant Concuſſions of the Cough; a Converſion of the Blood flowing into the Ulcer into Pus; an Increaſe of the *Vomica* in the Lungs; the burſting of this *Vomica* into the Tube of the *Larynx*; the ſometimes ſuffocating Diſcharge of the Pus, or the daily coughing up of Matter, which ſinks in Water, and is thick, ſweet, fat, fœtid, white, red, yellow, livid, aſh-coloured, or ſtreaked; and which, put into the Fire, has the Smell of burnt Fleſh. Sometimes the *Vomica* breaks into the Cavity of the Thorax, from whence proceeds Difficulty of Breathing, and the other Symptoms of an *Empyema*, (which ſee.) Then the Reſpiration grows exceeding bad; the *Chyle* and the whole Maſs of Blood are converted into *Pus*; the uſual Method of Nouriſhment is deſtroyed, the Solids continually conſume and waſte away; a *hectic Fever* appears, with a ſmall languid Pulſe, and the Heat in the upper Parts intenſe, the Cheeks look red, and the Face *Hippocratic*. Generally there is an inexpreſſible Anxiety towards the Evening; an unuſual Thirſt; profuſe nocturnal Sweats; red Puſtules; a Swelling of the Feet or Hands on the Side affected; exceſſive Weakneſs; a hoarſe Voice; a falling off of the Hair; an Itching throughout the Body, with watery Puſtules; a debilitating *Diarrhœa*, with yellow, fetid, purulent, cadaverous Stools; a Suppreſſion of the Spitting, and then Death.

Hence

Hence the *following Prognoſtics* may be formed.

An *hereditary Phthiſis* is the moſt dangerous of all, and is *incurable*, unleſs the *Spitting of Blood* be prevented.

A *Phthiſis from external Violence*, that is, proceeding from Spitting of Blood cauſed thereby, is the ſlighteſt of all, *cæteris paribus*.

A *Phthiſis in which the* Vomica *breaks ſuddenly*, and the Patient eaſily brings up a white, concocted, ſmooth *Pus*, and in Quantity proportionable to the Ulcer, without Thirſt, and with a good Appetite and Digeſtion, due Secretions and Excretions, is curable, though with Difficulty.

A *Phthiſis from an* Empyema *is incurable*.

Heavy, ſolid, ſtinking, ſweet Spittle, with Night-Sweats, livid Cheeks, Paleneſs of the Face, the Noſtrils pinched up, Sinking in the Temples, Incurvation of the Nails, falling off of the Hair, and a colliquative *Diarrhœa*, are Signs of approaching Death. SYD.

When a *Vomica* is known to be formed in the Lungs, then the Phyſician muſt endeavour to *ripen* and *break it*; which is to be done by *Milk-Diet*, *riding on Horſeback*, warm Vapours and Expectorants; which done,

1. The Blood muſt be guarded and defended againſt the purulent Infection, by Remedies which are moderately and agreeably acid and ſaltiſh, by vulnerary Herbs, ſmooth Balſamics given in various Forms, in great Plenty, and continued a long Time.

2. The Ulcer muſt be cleared, as ſoon as poſſible, from the purulent Matter, the Lips of it cleanſed and conſolidated, which is to be done by liquid Medicines, by Things which promote Coughing, both internally and externally, by Motion, Riding, Country Air; theſe are Expellents. The Cleanſers are, *detergent Balſamics*, uſed inwardly and outwardly. The Conſolidators are Paregorics.

3. The *Aliment* muſt be ſuch as requires the leaſt Force to make it paſs freely through the Lungs, and be there aſſimilated, and at the ſame Time be fit for Nouriſhment. Aſſes Milk is very ſuitable to this Intention, as alſo *Buttermilk*, which *Baynard* recommends as a Subſtitute; but I am of Opinion, that it exceeds it, for I lately knew a very extraordinary Cure performed by Buttermilk, when the Caſe was looked upon as deſperate; as alſo Ptiſans, Broths, and *Lacticinea*. BOERH.

I have found *ſmall repeated Bleedings* not only beneficial in old Coughs, threatning Conſumptions, but alſo after purulent Spitting and hectic Symptoms have appeared. The Quantity of Blood to be drawn is from four to ſeven or eight Ounces,

once in eight or ten Days. The Blood has been conſtantly ſizy; but if ever it ſhould be ſeen in a diſordered State, it will be highly improper to take any more away. Allowance is always to be made for the Strength of the Patient, and the Quantity of Blood is always to be ſuited to the Condition of the Weak.

I can freely recommend, from repeated Trials, the Uſe of Seatons, or Iſſues, made in the Side of the Part that is moſt affected.

In the *advanced State of a Conſumption*, we may diſtinguiſh two Sorts of Coughs; one cauſed by the Ulcers, and the other by a thin Rheum falling on the *Fauces* and *Trachea*, which Parts being then deprived of their Mucus, become extremely ſenſible to Irritation. This laſt Kind, perhaps, is the moſt painful and teazing to the Patient.

The firſt Kind of Cough is to be treated with Balſamics, if the Ulcer is open, and the Matter can be expectorated. Therefore give ten Drops of Balſam of *Capivi*, twice a Day, in a Bolus of Conſerve of Roſes; or,

7. ℞ *Balſam. Capivi*, ʒj. *ſolve in Vitell. Ovi, q. ſ. & adde Aquæ Fontan.* ℥iv. *Aq. Cinnamom. ſp.* ʒj. *Syr. Cort. Aurant.* ℥ſs. *M. cap. Cochl.* ij. *bis in Die. Adde pro re nata, Elix. Paregor.* ʒij.

The laſt Ingredient is occaſionally added, to keep the Balſam from purging.

The other Kind of Cough can be only palliated by Incraſſants, and for that Purpoſe give Conſerve of Roſes and Opiates. The laſt are apt to heat and bind the Body, and to obſtruct Expectoration. But theſe bad Qualities are, in a great Meaſure, to be corrected by Squills. Therefore, as ſoon as the Patient begins to complain of reſtleſs Nights from Coughing, give a Draught with ʒiſs of *Oxymel* of Squills, and *gutt.* xv. of *Tinctura Thebaic.* at Bed-time. The Doſe may be increaſed when there ſeems to be occaſion for it.

I have never ventured on the *Bark* in any Stage of the Conſumption, unleſs in a convaleſcent State, when the Lungs ſeemed to be free from Obſtruction. [But this ought to be well conſidered, as the Bark is ſuch an Enemy to Putrefaction, inſomuch that it has been lately given with Succeſs in the Sore Throat of the malignant Small-pox, in the putrid Sore Throat, and in Spotted Fevers themſelves.] Then I have ſometimes given the *Tinctura Corticis* with the *Elixir Vitrioli*, in order to brace the Fibres, and reſtore the Appetite. *Pringle.*

[Since

[Since the printing of the former Edition, I have had ample Experience of the Virtues of the Bark in all the Stages of a Conſumption.]

We muſt endeavour to diminiſh the Defluxion on the Lungs, by *Bleeding* and *gentle Purging*, as well as *Pectorals*, accommodated to the various States of the Diſtemper, viz. by *thickening*, Medicines and *Attenuants*, and ſuch as temperate the Hectic Fever, with Emulſions and Aſſes Milk, &c. and laſtly, by healing the Ulcer with *Balſamics*, as *Opobalſamum*; the Doſe is xx Drops upon Sugar; but this is not to be taken before due Evacuations have been firſt made.

After Evacuations, great Care muſt be taken, that the Cough be appeaſed, leſt the Lungs ſhould be weakened by the continual Agitation, which may be done by the following Mixture:

℞. *Decoct. Pectoral.* ℔j. *Syr. è Meconio, Syr. Pectoral. an.* ℥ij. *M. Cap. Cochlear.* v. *ter in die.*

This is a very uſeful Medicine to reſtore the Lungs to their priſtine Vigour, unleſs too far decayed.

But the moſt ſovereign Remedy of all is to get on Horſeback every Day; and he that will put himſelf upon this Exerciſe for a Cure, need not be tied down to any ſtrict Rules of Diet, nor be debarred from any Sort of Meat or Drink, ſince the whole Streſs of the Matter depends wholly on the conſtant and continual Exerciſe of Riding: One thing the Phyſician, who is to direct about the Exerciſe, is to obſerve, that if the Patient is paſt the Time of his full Growth, he ought to inſiſt longer upon this Exerciſe to ſuch an one, than to thoſe that are younger. *And in reality*, the Peruvian Bark *does not with greater Certainty cure* Intermitting Fevers, *than* Riding *does a* Conſumption, provided the Patient takes care that his Sheets are well aired, and that the Journeys he takes are ſufficiently long. Nor is Riding leſs beneficial in ſlight Diſorders of this Kind, or when the Patient was only troubled with a frequent Cough and a Waſting, but when the Diſeaſe was ſo far advanced as to be attended with *Night Sweats* and a *Diarrhœa*. And though I have mentioned riding on Horſeback as the chief Exerciſe, yet going Journeys in a Coach has often had wonderful Effects. Some of thoſe who have been cured by this Method, have had a Swelling riſing in their Necks, not unlike ſcrofulous Tumours. *Syd.*

[But as Multitudes are not able to comply with the Advice of *Sydenham*, and as Conſumptions are ſo common, that they make up above a tenth Part of the Bills of Mortality in *London*, I ſhall lay down *Morton*'s Method of Cure as ſuccinctly as I can.]

In the *firſt Stage of this Diſeaſe*, when the *Lungs*, *Trachæa*, and Glands, throughout the *whole pulmonary Tube*, are ſtuffed with a pituitous Matter, ſeparated from the Maſs of Blood, and the Patient is afflicted with a *continual Cough*, eſpecially in the Night-time, all proper Methods muſt be uſed to ſtop the Influx of this Catarrh, and to concoct the Humours already impacted.

Firſt, Blood muſt be taken from the Arm, from ſix to ten Ounces, if the Patient is *plethoric*, or accuſtomed to Bleeding; this is to be repeated once, twice, or thrice, at proper Intervals, eſpecially if the Flux of Serum is like a ſuffocating Catarrh, together with the copious Expectoration of a crude Phlegm; or where there is an aſthmatic Difficulty of Breathing, a Pain in the Side, or the Signs of any Diſpoſition to a Rheumatiſm, a Pleuriſy, or a Peripneumony; or in caſe of a *Crapula*, or a Debauch with Wine or ſpirituous Liquors.

After *Bleeding*, (eſpecially if the Diſeaſe proceeds from a *Crapula*, or there is a *Nauſea*, or an Inclination to vomit,) it will be neceſſary to give an *Emetic* with *Oxymel* of Squills, [or Ipecacuanha Wine,] which will ſometimes ſtop the Progreſs of an *incipient Phthiſis*. The *Emetic*, if it agrees with the Patient, and there is Occaſion for it, may be repeated every third or fourth Day, three or four Times. The beſt Time is towards the Evening; and after the Operation is over, an *Opiate* will be proper. The Forms are thus:

9. ℞. *Oxymel. Scillit. Ol. Amygd. dulc. an.* ℥j. *M.* Let the Patient take it in a large Draught of Poſſet-Drink, and repeat it twice or thrice in an Hour if there is Occaſion.

10. ℞. *Aq. Alexeter. ſimp.* ℥ij. *Aq. Cinnamom. ſimp.* ℥ſs. *Syr. è Mecon.* ʒvi. *M. F. Hauſtus.*

Or he may take ſix or ten Grains of *Storax Pills*.

It will alſo be convenient to carry down the Impurities by Stool, with a *gentle Cathartic:*

11. ℞. *Mann. ſelect. Ol. Amygd. d. an.* ℥jſs. *vel* ℥ij. *ſolve in Ptiſan. calid. bibat Æger mediam partem in lecto, reliquam poſt dimidiam Horam, è lecto ſurgendo.*

Let the *Opiate* likewiſe be given at Night as after the *Vomit*. Or an *Opiate* may be joined to a Stomach Purge, and be given at Bed-time.

12. ℞. *Gum. Aloes.* ℈j. *Pil. è Styrac. gr.* viij. *M. F. Pil.* iv. *deaurandæ quæ alternis Noctibus repetendæ ſunt, Venæſectionibus debitis, prius celebratis.*

Opiates

Opiates may be more freely uſed, as I have learnt by Experience, in the Beginning than in the Progreſs of this Diſeaſe, though they may be of ſome Service at all Times judiciouſly given.

Diaphoretics likewiſe ſhould not be neglected, which carry the Serum through the cutaneous Pores; they ſhould be without a Mixture of Opium, and ſhould be given at Bed-time, after Bleeding, Purging, or Vomiting, thus,

13. ℞. *Theriac. Androm.* ʒſs. *vel* ℈ij. *Conſerv. Roſ. rubr. antiq.* ʒſs. *M. F. Bolus. Vel,*

14. ℞. *Electar. è Scord. Conſerv. Lujul. an.* ʒj. *M. F. Bolus. Vel,*

15. ℞. *Pil. Saponac.* ℈ſs. *F. Pil.* No. ij. *deaurandæ, et horâ ſomni ſumendæ. Vel,*

16. ℞. *Pil. è Styrac. gr.* viij. *Calc. Antimon.* ℈j. *Syr. Croc. q. ſ. M. F. Pil.* iv. *deaurandæ.*

Nor muſt thoſe Remedies that ſoften, lubricate, thicken, and concoct the Phlegm, be omitted; ſuch as *Sugar-candy, Barley-ſugar, old Conſerve of Roſes, Juice of Liquorice,* the *white* and *black Troches* of the *London Diſpenſatory*; *freſh Butter* in Water-gruel, *ſweet Oil,* or Oil of Sweet Almonds, eſpecially *Linſeed Oil* cold drawn, of which the Patient may take a Spoonful every Hour, unleſs there is a *Diarrhœa,* or any other contra-indicating Symptom. He may alſo eat Raiſins, Figs, or uſe the Lohochs and Linctus preſcribed for a Cough.

But if the Cough has been long and violent, and will not yield to the former Remedies, and there is Reaſon to fear that *Tubercles* are forming, we muſt have Recourſe to *Balſamics*; for Inſtance, let the Patient take three of the following *Balſamic Pills* three Times a Day, whoſe Efficacy I have experienced for many Years, in a Spoonful of any proper Linctus, drinking after it a Draught of the *Pectoral Apozem,* pretty warm.

17. ℞. *Pulv. Millep. pp.* ʒiij. *Gum. Ammoniac. optim. depurat.* ʒj. *Flor. Benzoin.* ℈ij. *vel* ʒj. *Extract. Croc. Balſ. Peruv. an.* ℈ſs. *Balſ. Sulph. Terebinthinat. vel aniſat. q. ſ. M. F. Pil. mediocres, deaurand. vel Pulvere Glycyrrhizæ involvendæ.*

18. ℞. *Decoct. Pectoral.* ℔ iſs. *Tinctur. Croc. Vinoſ. Syr. Pectoral.* ℥ij. *M. F. Apozem. pectorale.*

If the febrile Heat contraindicates the Tincture of Saffron, it may be omitted.

The above Pills in the ſlow *Phthiſis* (which indeed is the moſt frequent) of ſcorbutical and ſcrofulous Patients, where the Fe-

ver, if any, is mild, and the Spittle glutinous, are not only excellent in the Beginning of the Diſeaſe, but alſo in its Progreſs.

The Air ſhould be pure, far from Bogs and marſhy Places, and the Smoke of Sea-coal. The Aliment light of Digeſtion, the Drink ſmall, for ſpirituous Liquors ſhould be avoided. The Patient ſhould uſe Exerciſe, before Meals at leaſt, and keep his Mind as free from Paſſions as poſſible.

The *ſecond Stage* of this Diſeaſe may be reckoned from the *firſt Formation* of the *Tubercles*, till they begin to inflame and putrify, that is, while they remain in a *crude State*. This is known from the *Increaſe of the Hectic Fever*, from the *waſting and flaccid State of the muſculous Fleſh*, from the *Dryneſs of the Cough*, for the Spitting conſiderably abates, and from the *great Weight* and *Oppreſſion* which is continually felt in the Breaſt.

In this Stage, *all Evacuations by Vomit, Stool, and Sweat, are pernicious*, for they increaſe the Fever, and accelerate the Conſumption. Nor is *Bleeding* otherwiſe proper, than as it prevents an Inflammation, and then it muſt be uſed with a ſparing Hand, when there are *pleuritic* Pains, or the Patient hath catched a freſh Cold.

The Patient muſt continue the Uſe of the *pectoral Medicines* before deſcribed, and eſpecially the *balſamic Pills*, for, by this means I have cured many conſumptive Perſons, if the Fever was not great, and the Tubercles cold and crude, and conſequently the Phthiſis chronical.

Beſides the alterative Medicines, taken in ſmall Quantities, and at ſtated Times, Endeavours muſt be uſed to cool the febrile Heat of the Blood, and decreaſe the Quantity of the noxious Humours. The Diet muſt be ſuch as will obtund the Acrimony of the Humours; as Partridges, Mountain-Birds, poached Eggs, Oyſters, Calves-feet, and Jellies, and Soups made therefrom; alſo Craw-fiſh and other Shell-fiſh, and Broths made of their Fleſh. Likewiſe *Spaw-waters*, Pectorals, Hydromel, a Milk Diet, Aſſes-milk, Milk-water, Millepedes, Snails, and the like; together with Iſſues, ſhaving the Head, and proper Plaiſters.

If the *febrile Heat is mild*, from whence we may conjecture that the Swellings of the Lungs are crude, at leaſt ſcrofulous and cold, or *ſteatomatous*, let the Patient be ſent to drink, in the Summer-time, the *Chalybeate mineral Waters*; by this Means I have relieved Patients and kept them alive ſeveral Years, and their Fleſh and Strength have returned. The Patient ſhould only drink four, or at moſt ſix Pints in a Day, a little at a Time, for fear of diſtending the tender Veſſels of the Lungs, and bringing on Spitting of Blood. This ſhould be continued ſeveral Years,

Years, and the Quantity may be leſſened yearly. They ſhould not, as others, purge before their Uſe; but if their Bodies are bound, they ſhould uſe the *purging mineral Waters moderately*, with the Interval of three or four Days, and repeat them three or four Times.

If the *Waters do not paſs by Urine*, take a Scruple of the *Salt of Amber* in the firſt Draught.

If they purge, take the Quantity of a Nutmeg of the following Electuary every Night, at Bed-time:

19. ℞. *Conſerv. Roſ. rub. antiq.* ℥j. *Pulv. è Succin. compoſ.* ʒiij. *Bol. ver. Sang. Dracon. an.* ʒſs. *Pil. è Styrac. gr.* xv. *Syr. Cydon. q. ſ. M. F. Electuarium.*

But if the *Hectic Heat* is remarkable, it will be better to cool the Blood with a Milk Diet than with Waters; and if Cow's Milk diſagrees with the Patient's Stomach, then Aſs's is to be drank in the Morning, that he may ſleep after it; the Quantity from Half a Pint to a Pint. If it cauſes a *Diarrhœa*, let it be ſweetened with Sugar of Roſes, and milked upon a Sprig of Mint; or, if Occaſion requires, and nothing elſe forbids, he may take a Doſe of the *Electuary* juſt preſcribed. This Milk ſhould alſo be drank in its natural Warmth, not heated again. All other Medicines ſhould be left off except Opiates and Aſtringents, if they are required. If the *Diarrhœa* cannot be ſtopped, or if ſtopped, a Vomiting enſues, or a Sickneſs with a Heavineſs at the Stomach, or if there are Signs of a *Schirrus*, or great Obſtructions of the Liver, which is common to ſcorbutical and hypochondriacal Perſons, then Milk of all Kinds muſt be forborne; otherwiſe the Obſtructions will increaſe, and the *Jaundice* and *Dropſy* will be produced.

Wherefore in theſe Caſes it is better to *obtund the Acrimony of the Blood* by the copious Uſe of *Fiſh* and *taſtaceous Medicines*; but more eſpecially by feeding on *Shell-fiſh of all Kinds*, not forgetting *Hart's-horn Jellies*, Calves Feet, and Broths made of Things of the ſame Kind, with the Addition of a Capon or Chicken, and Shavings of Harts-horn or Ivory, of which Broth the Patient may take a large Draught twice or thrice in a Day. The teſtaceous Powders may be preſcribed thus:

20. ℞. *Pulv. Millep. Ocul. Canc. ppt. Pulv. è Chel. Cancror. ſimp. Coral. rub. an.* ʒj. *Pulv. Succin. alb. M. Divide in chartulas* ix. *quarum unam ſumat ter in Die è Cochlear. Julep. ſequent.*

21. ℞. *Aq. Alexeter. ſimp.* ℔j. *Aq. Cinnamom. ſimp.* ℔ſs. *Marg. ppt.* ʒſs. *Sacchar. Chryſt.* ℥ij. *M. F. Julep.*

In

In the *third Stage of this Diſeaſe*, little Hopes remain of a Cure, unleſs the Ulcers are ſmall and benign. However, to promote it as much as poſſible,

22. ℞. *Pulp. Conſerv. Roſar. rub. antiq. Lujul. Balſam. Locatel. an.* ℥j. *M. F. Electarium, de quo cap. Quant. Nuc. Moſchat. mane & veſperi.* Likewiſe,

23. ℞. *Syr. Balſam.* ℥iij. *Vini Crocei* ʒij. *ſumat. ſæpius è Cochleari.*

In a Spoonful of this Mixture the Patient may drop vi or viij Drops of *Opobalſamum* twice in a Day. In this State of the Diſeaſe, Opiates ſhould be ſparingly uſed, even tho' the Cough and Want of Reſt require them, becauſe they not ſeldom bring on ſudden Death. Jellies and Broths are likewiſe to be directed; for, in ſhort, there is now more Help to be expected from the Kitchen than the Apothecary's Shop.

The *Peripneumonic Fever* which attends this Diſeaſe, ariſes from the Inflammation of the Tubercles of the Lungs; and it is renewed as oft as a freſh Tubercle is inflamed, either ſpontaneouſly or from an Error in the Regimen. This Fever conſtantly continues during the Inflammation, and not ſeldom takes the Patient off ſuddenly. It is accompanied with *Shiverings* and *intenſe Heats* by Fits; with *Watching*, *Toſſing*, a *Delirium*, *difficult Breathing* and *Expectoration*; *violent wandering Pains* of the *Side*, *Breaſt*, and *Shoulders*. When the *Fever terminates in an Abſceſs*, which is uſually about the ſeventh Day, this inflammatory Fever is ſucceeded by a *putrid Quotidian*, or *Tertian* intermitting Fever, which is a certain Sign of a Purulence of the Tubercles, and cannot be cured before they are healed.

This *inflammatory Fever* requires a very ſlender Diet, lying in Bed, and an open Body, with *Abſorbents*, *pectoral Apozems*, and *inciding* and *lubricating Linctus's*; as alſo *Diaphoretics*, with a ſmall Proportion of *Opium*; not omitting *Epithems*, *Liniments*, and *anodyne Fomentations*. But above all, *timely* and plentiful Bleeding, as much as the Patient's Strength will permit, not then regarding the Conſumption, however deſperate.

Blood is to be taken away at proper Intervals, till the Cruſt, like melted Suet, entirely vaniſhes. Then give *Manna*, *Caſſia*, *Cremor. Tartar*, *Tartar Vitriolate*, or the like. The Patient may be cooled with Emulſions of Nitre; the Drink muſt be Water: Wine, Strong-Beer, and Fleſh muſt be omitted.

The Diet ſhould be *Water Gruel*, *Ptiſans* of *ſcalded Apples*, *Poſſet Drink*, *ſtoned Raiſins* and *Liquorice*; Table-Beer warmed with

with a Toaſt, and the like. When the Fever is on the Decline, Chicken-Broth, Poached Eggs, *&c.*

If there is Occaſion, the Body muſt be looſened with Clyſters of Sugar'd Milk, with Chamomile Flowers, and repeated as Occaſion requires; then take away ten Ounces of Blood on the Side affected, which ſhould be boldly repeated every, or every other Day, according to the Urgency of the Symptoms.

In the mean while, and through the whole Courſe of the Diſeaſe, a Spoonful of the following *Linctus* will be proper, every third or fourth Hour, in ℥iv. of the following Pectoral Apozem, pretty warm:

24. ℞. *Ol. Amygd. dulc. recent. Syr. Pectoral.* ℥ſs. *Sacc. cand. alb.* ℥iſs. *M. exactiſſime. F. Linctus.*

If a glutinous Spittle, Shortneſs of Breath, and the Violence of the Diſeaſe require, and no Diarrhœa forbids it, inſtead of the *Ol. Almygd.* Linſeed Oil cold drawn may be uſed; or two Ounces of the Linſeed Oil may be taken by itſelf every fourth Hour; for it has both a lubricating and an anodyne Quality.

25. ℞. *Decoct. pectoral.* ℔ ſs. *Vin. Crocei, Syr. pectoral. an.* ℥j. *M. F. Apozem.* for the Uſe above mentioned.

To refreſh the Spirits, and temperate the Effervеſcence of the Blood, give four Ounces of the following Julap:

26. ℞. *Aq. Alexeter. ſimp.* ℥viij. *Aq. Cinnamom. ſimp. & ſpirituoſ. an.* ℥ij. *Margarit. ppt.* ʒiſs. *Sacch. albiſſ.* ʒij. *M. F. Julep.*

At Bed-time the following *anodyne* and *diaphoretic Bolus* may be taken, with a Draught of the *Pearl Julep*, eſpecially if the Body is too open:

27. ℞. *Theriac. Androm.* ʒſs. *Pulv. è Chel. Cancror. comp.* ℈j. *Syr. Caryophil. q. ſ. M. F. Bolus.*

After Bleeding apply *Bliſters* to the Neck and Arms to prevent the Head and *Genus Nervoſum* from being affected; and the *Cephalic Plaiſter* with *Euphorbium*, to the Soles of the Feet.

To take away the Pains of the Side and the Spaſms of the *thoracic* Membranes, the following Fomentation and Liniment have been found beneficial:

28. ℞. *Rad. Petroſelin. Fœnicul. Sem. Lin. Fœnugr. an.* ℥ij. *Flor. Chamæm. Melliot. an.* Mij. *M. & coque in Aq. Font. q. ſ.*

Put the ſtrained Liquor in an Ox's Bladder till it is half full, and let it be applied hot to the Parts affected with Pain. When the Bladder is removed, lay on a hot Flannel dipt in the following Liniment:

29. ℞.

29. ℞. *Unguent. Dialth.* ℥ss. *Ol. Sambucin. Laterit. an.* ʒiij. *M. F. Linimentum.*

To temperate the farther Effervescence of the Blood, and the Heat of the Lungs, the following Powder may be prescribed:

30. ℞. *Sal. Nitr. purissim.* ʒiij. *Sacch. cryst. alb.* ℥ss. *M. in Chartulas* viij. *quarum una dissolvatur in singulis Haustibus Cerevisiæ propinand.*

As to the *intermitting putrid Fever*, though it is impossible to eradicate it quite without healing the Ulcers of the Lungs, yet I have often found the Bark very efficacious in suppressing the Paroxysms, at least for a Time, and the Patient's Life preserved several Years.

31. ℞. *Cort. Peruv. subtilissime trit.* ʒss. *Syr. Balsam. q. s. M. F. Bolus.*

This is to be taken in the Morning early, and repeated every sixth Hour, for three Days together, drinking after it three or four Ounces of the following Apozem:

32. ℞. *Cort. Peruv. pulverisat.* ℥iij. *Bals. Tolutan.* ʒij. *Cochinel. Croc. Ang. an.* ℈j. *Coq. in Decoct. pectoral.* ℔j. *ad* ℥vi. *Deinde cola & affunde Decocti præscript.* ℔j. *de novo; Operationem ita renovendo ad tertiam vicem: Denuo Colaturas omnes misce, atque adde Vin. Malvatic. Syr. Balsam. an.* ℥iv. *M. F. Apozem.*

Let these be repeated twice in a Month, or oftner, as Occasion shall require, and give Pectorals in the intermediate Times. If the Body is too laxative, to every Bolus taken at Night, may be added five Grains of the *Storax Pills.*

When in the *last Stage of this Disease*, there is a *Diarrhœa*, or *Dysentery*, with *griping Pains*, the Patient must abstain from all Sorts of Malt Liquors, and use the *white Decoction*, and Milk boiled with Water, and likewise take, every fourth Hour, the Quantity of a Nutmeg of the astringent Electuary before prescribed, where the Mineral Waters are directed; or Laudanum may be given pretty freely alone, for no other Remedy will avail. Also a *Clyster of Chicken Broth* should be injected every Day. If this Symptom is not very urgent, then the Opiates should be ordered very seldom. But when they are given, Expectorants and lubricating Medicines should not be omitted.

[Or, instead of the above, the following Remedies may be given:

33. ℞.

33. ℞. *Rhubarb. ſubtiliſſ. pulveriſat. gr.* xxv. *Cinnam. acut. gr.* v. *Electar. e Scord.* ʒſs. *Syr. è Mecon. q. ſ. M. F. Bolus, Hora ſomni ſumendus.* The Night following,

34. ℞. *Aq. Alexeter. ſimp. Aq. Cinnamon. ſimp. an.* ʒſs. *Aq. Cinnam. ſpir.* ʒiij. *Tinct. Thebaic. gutt.* xij. *Syr. e Mecon. M.*

Repeat theſe Medicines in this alternate Manner for ſix Nights, if the Symptoms are not relieved. If the *Diarrhœa* grows more obſtinate, give the following Clyſter:

35. ℞. *Decoct. alb.* ℔ſs. *Electar. e Scord.* ʒiij. *Theriac. Androm.* ʒj. *M.*

If, upon three Trials, this Clyſter is found ineffectual, add two Grains of Opium, or forty Drops of the *Thebaic Tincture.*

A continual Coughing and Want of Sleep cannot be relieved without Opium, wherefore,

36. ℞. *Syr. Balſam.* ʒij. *Tinctur. Thebaic. gutt.* xl. *M. Capiat. Æger Cochleare unum ſingulis, vel alternis horis.*

Or an Ounce of *Diacodium* going to Bed; or Oil of Sweet Almonds may be mixed with *Diacodium* in equal Quantities.

In *colliquative Sweats*, *Pearl Juleps* may be freely given, to which may be added *Chalk*, *Coral*, *Dragon's Blood*, or other *Abſorbents.* [But the *Peruvian Bark* for this Purpoſe, is much better than any other Medicine whatever.] The Patient ſhould not be permitted to ſleep too long, the Bed-cloaths ſhould be light, and he ſhould be removed to fine ſubtile Air.

Vomiting, when the Tragedy is almoſt concluded, can receive little or no Help from Medicine. *Morton.*

As ſoon as I am called to a conſumptive Perſon, in the firſt Stage of the Diſeaſe, fatigued with a Cough, which afterwards is become moiſt, and exceeds the Bounds of a common Catarrh, accompanied with Difficulty of Breathing, Leanneſs, *&c.* I immediately examine the Liver, where I conſtantly find a conſpicuous Hardneſs, and often a Pain. I afterwards examine if any general Remedies are indicated, in which Caſe I order the Patient to bleed and purge; I even repeat Bleeding when the Pain is violent, and if the Patient is young, heated with Wine or ſpirituous Liquors, to prevent the Inflammation of the Tubercles.

Then I apply a great Plaiſter of *Empl. Diabotanum* upon the Region of the Liver, with which Mercury revived from *Cinnabar* is incorporated: [*Emplaſtrum ex Ammoniaco cum Mercurio* will do altogether as well.] Every Night I order the Plaiſter to be taken off, and the Quantity of a Drachm of the Mercurial Ointment to be rubbed in at the Swelling, and then the Plaiſter

Plaiſter is put on again, which remains there Night and Day.

Internally, I give the following Powder:

37. ℞. *Chalyb. cum. Sul. ppt. Millep. Benzoin. Coral. rub. ppt. Ocul. Cancr. an.* ℈j. *M. F. Pulvis, manè & veſperi ſumendus.*

Or Troches may be made of the ſame Ingredients, thus:

38. ℞. *Chalyb. cum. Sul. ppt. Millep. pul. Benzoin. Coral. rub. ppt. Ocul. Canor. ppt. an.* ʒſs. *Cinnam. pulv.* ʒiij. *Sacchar. albiſſim.* ℔ſs. *M. & cum Mucilag. Gum. Tragacanth. F. Trochiſci.*

Let each of the Troches weigh two Drachms, and let the Patient take one, Night and Morning.

After every Doſe of the Troches or Powder, I order a Draught of a Ptiſan made of Nettle-Roots, or of Whey well clarified, in which I mix two Ounces of the Juice of Water-Creſſes, and as much of the Juice of Chervil; or ſome Veal Broth in which Radiſhes of *Perigord*, Creſſes, Brook-Lime, and Chervil have been boiled: Or an Infuſion of Green Tea.

If the Patient's Circumſtances will allow the Expence of Riding on Horſeback, I oblige him to it Morning and Evening; and to increaſe his Ride every Day, unleſs bad Weather, a cold Wind, great Rains, or Fogs, prevent it; and then he muſt keep himſelf warm at home; for he muſt take Care of catching Cold during the Courſe of theſe Remedies.

By a long Continuance of theſe Remedies, I have ſeen the Cough diſappear, the ſlow Fever go off, the Obſtruction of the Liver and Spitting diminiſh, the Diſcharge by Urine increaſe, Reſpiration become free and eaſy, a freſh lively Colour return, and the Patient recover his Fleſh.

When the Conſumption is arrived at the *ſecond Stage*, that is, when the Patient ſpits *Pus*; when he is tormented by a violent and continual Cough; when his Fever exceeds a ſlow Fever, and is ſtrong, and his Waſting is far gone, the Tubercles being come to Suppuration; then Riding is abſolutely neceſſary, and the Powder muſt be taken in the Morning, at Four in the Afternoon, and at Eight at Night: He muſt live upon Cow's Milk boiled and ſkimmed, and mixt with an equal Quantity of Tea. By theſe Means I have known ſeveral recover.

In the laſt Stage all Medicines are uſeleſs, and the Patient can expect nothing but to leave the World in a ſhort Time. *Deſault.*

Of the Nervous Conſumption.

A *Nervous Atrophy*, or *Phthiſis*, is a Waſting of the Body, without any remarkable Fever, Cough, or Difficulty of Breathing; but is attended with Want of Appetite and a bad Digeſtion; whence the whole Body grows languid, and is continually falling away.

At firſt the Body is *œdematous*, and as it were ſtuffed with a *vapid Chyle*. The Face looks pale and bloated, and the Stomach loaths every thing but Liquids. The Patient is forced to keep his Bed ſooner than the Progreſs of the Decay of his Fleſh ſeems to require. The Colour of the Urine is uncertain, but it is generally very red and ſmall in Quantity; ſometimes it is pale and copious.

No conſiderable Fever is diſcernible either by the Pulſe, Heat, or Thirſt, though the Urine is ever ſo red.

The *Cauſes* of this Diſeaſe are generally, violent Paſſions of the Mind, a too frequent Uſe of ſpirituous Liquors, and unwholeſome Air.

It is very difficult to cure, unleſs good Advice be had in Time. It generally terminates in a Dropſy, which carries the Patient off.

Stomachic and *nervous Remedies* are only to be depended upon, ſuch as *Chalybeates*, *Antiſcorbutics*, *Cephalics*, and Bitters. If the Body be coſtive, two Ounces of *Tinctura ſacra* may be taken every fourth Evening, and from thirty to ſixty Drops of *Elixir Aloes*, in a Glaſs of White Wine with Bitters, before Dinner. [The *Elixir of Vitriol* is excellent in this Caſe, twenty, thirty, or forty Drops is a Doſe, in any convenient Vehicle, once, twice, or thrice a Day. Alſo about half an Ounce of the Chalybeate Wine, in ſome proper Liquid, in the Winter; in the Summer, the Spaw Waters: The uſual Drink may likewiſe be made bitter with the *Vinum amarum*; but nothing ſtrengthens the Stomach more than a Decoction of Wormwood.]

Sometimes the Patient may take eight or nine Drops of *Opobalſamum*, or Spirit of Hart's-horn, or of *Sal Ammoniac*, as friendly to the Nerves; nor muſt he forget Exerciſe and chearful Company, with other Diverſions. Outwardly, the *Emplaſtrum Stomachicum* may be applied to the Navel. *Morton.*

Of

Of the Symptomatic Conſumption.

A *Conſumption ariſing from a Gonorrhœa*, or the *Fluor Albus*, is known to be approaching in *Men*, from the Hypochondriac Affection, Sadneſs, Penſiveneſs, and Decay of Strength; in *Women*, from the Hyſteric Paſſion, and the whole Habit of Body being flabby, œdematous, ſqualid, and pale, with great Wearineſs and Loſs of Strength. When the Diſeaſe is confirmed, there is a Thirſt, a Hectic Diſpoſition, and a waſting away of the Body, till the Patient falls into a *Maraſmus*, or becomes a mere Skeleton, generally without a Cough, or any Sign of a Conſumption of the Lungs. If it be recent, the Running muſt be cautiouſly ſtopt; the Patient muſt uſe Exerciſe and Frictions, and abſtain from the free Uſe of Wine and ſpirituous Liquors. But if there is the leaſt Degree of a Hectic Heat, Recourſe muſt immediately be had to a Milk-Diet and Spaw Water.

A Conſumption from Abſceſſes and Ulcers, is known by a Feveriſh and Hectic Heat, with Thirſt, Decay of Strength, Want of Appetite, a *Nauſea*, a waſting of the Body, and at length Want of Sleep, a *Delirium*, and other Symptoms of a Fever, till the Patient being quite worn away, goes off the Stage without any Sign of a Defect in the Lungs. The Ulcer muſt be ſeaſonably healed, with the Uſe of Internals as well as Externals: Six or eight Ounces of the following Lime-Water ſhould be taken three Times a Day:

1. ℞. *Sarſ. opt. inciſ.* ℥vi. *Uvar. Corinth.* ℔ ſs. *poſt debitam Infuſionem coq. in Aq. Fontan.* ℔ xij. *ad* vi. *deinde F. Colatura. In hoc decocto extingue Calcis vivæ* ℔ ſs. *Decantetur & per Reſidentiam depuretur ad Uſum.*

Unleſs the Patient is already Hectic, Mercurial Cathartics may be given, to haſten the Cure of the Ulcer: Thus,

2. ℞. *Diagryd. ſulphurat. vel Reſin. Jalap. gr.* xvi. *Mercur. dulc. ſexies ſublimat. gr.* vi. *Syr. è Spin. Cervin. q. ſ. M. F. Bolus.*

Internal balſamic Remedies are alſo uſeful; for Inſtance, the Patient may take *Locatellus's Balſam* and *Conſerve of Roſes*, of each half a Drachm, with three or four Drops of *Balſam of Peru*, or he may take a Spoonful of *Syrup of Balſam*, two or three Times a Day; or half a Drachm of *Balſam of Tolu*, reduced into ſmall Pills, at the medicinal Hours, drinking the Decoction of *Sarſaparilla* after them. The greateſt Care ſhould be taken after the Cure of the Ulcer, leſt a Pulmonary Conſumption

ſhould

ſhould follow. Wherefore make *Iſſues*, continue the Uſe of *Balſamics*, a *Milk-Diet*, and *Mineral Waters*.

A Conſumption from giving Suck, is firſt known by a *Want of Appetite*, which is followed by a *Decay of Strength*, and then by *Hyſteric Diſorders*. When a *Maraſmus* comes on, it is incurable.

Let the Nurſe wean the Child as ſoon as her Appetite begins to fail, and uſe a Diet that yields good Nouriſhment; alſo Exerciſe, and taking the Air, will be beneficial. If a Hectic Diſpoſition requires it, a Milk-Diet and Chalybeate Waters muſt be recommended.

[*A Conſumption proceeding from a* Diarrhœa, *a* Dyſentery, *a* Diabetes, *a* Salivation, *a* Dropſy, *and* profuſe Sweats, *have nothing peculiar in the Manner of their Cure, but what relates to the* primary Diſeaſes, *and a* Phthiſis *in general.*]

A *Scrophulous Conſumption* is known by the glandulous Tumours in the outward Part of the Body, and from the frequent Returns of ſore Eyes, and the Itch. There are ſome who have ſcrophulous Tubercles of the Lungs, not apt to be inflamed, and who live in a conſumptive Condition from their Childhood to old Age, and yet have a conſtant Cough, Day and Night, and at all Seaſons of the Year, with Heavineſs in the Breaſt, and Difficulty of Breathing, but without any Fever, and yet upon taking Cold, to which they are obnoxious, they expectorate Plenty of Phlegm or ſerous Matter. Theſe may be cured by good Air, in an open, ſunny Place, but frequently changed, together with a long Uſe of *Balſamics*, *Mercurials*, *Millepedes*, *Chalybeates*, eſpecially *Mineral Waters*, and other antiſcrophulous Remedies. In this Caſe a *Milk-Diet*, *Pectorals*, and *Opiates*, are of little Service, unleſs when a Cold has been newly caught. [A Decoction of *Colt's Foot* is good in the worſt of theſe Caſes, ſays *Fuller*.]

But when the Tubercles are apt to be inflamed and exulcerate, it muſt be treated as a *Pulmonary Conſumption*. Bleeding at the firſt, to prevent the Inflammation, is neceſſary; the pulmonary Medicines muſt be mixed with Millepedes and other things proper for the *King's Evil*. Gums and Balſams are uſeful, but eſpecially our *Balſamic Pills* directed in the *Pulmonary Conſumption*, by a long Uſe of which I have cured many. When an Abſceſs is formed, Specifics are of no Uſe, therefore the Treatment has nothing peculiar.

When the *Tubercles are of a middle Nature*, the Patient may live ſeveral Years in a valetudinary State, but is very ſubject to putrid Fevers, from Exceſs, or taking Cold, which does the Patient more hurt in a Week, than otherwiſe he would ſuſtain

in a Year. As ſoon as the Fever appears, moderate Bleeding is neceſſary, though he be emaciated, and *antiſcrofulous Medicines* muſt be blended with *Antifebriles*.

In the *Summer*, unleſs there is an Obſtruction of the Liver, attended with a Dropſy, Chalybeate Waters muſt be drank a conſiderable Time: In *Winter*, our *Balſamic Pills* muſt be taken, as alſo Gums, and other *Balſamics:* In the *Spring*, a Diet-Drink with *Millepedes* and *antiſcrofulous* and *pectoral Ingredients*. *Opiates* ſhould not be given but in Caſe of Neceſſity. But the moſt efficacious Medicine of all is the *Peruvian Bark*, given to Half a Drachm Morning and Evening, as I have found by Experience. And the Reaſon of this is now evident, ſince the Virtues of it have been diſcovered in other ſcrofulous Diſorders.

A *Scorbutic Conſumption* may be expected to be coming on, when there is a frequent Eruption of Pimples, like the *Herpes miliaris*, diſperſed all over the Skin, and a perpetual hawking up of ſalt Phlegm, eſpecially in the Morning, often attended with Ulcers and an Eroſion of the Gums.

The Cure of this Diſeaſe differs from the general Method in the following Particulars.

Opiates are always noxious, unleſs after taking a freſh Cold, to mitigate the Symptoms; becauſe it renders the Phlegm more glutinous.

The *Pectoral Medicines* ſhould be ſuch as incide, cleanſe, and promote Expectoration; as *Honey*, *Hydromel*, *Oxymel*, *Gums*, and *Balſams*, but more eſpecially our *Balſamic Pills*, whoſe Efficacy I have often experienced.

The *Pectorals* ſhould be blended with *Antiſcorbutics*, ſuch as *Water-Creſſes*, *Brook-Lime*, *Tops of Fir*, *Ground-Ivy*, *Roots of ſharp-pointed Dock*, and *Male Piony*; which ſhould be put in a Bag, and ſuſpended in the Beer or Ale, for common Drink.

Steel is uſeful in the Cure of this Diſeaſe, unleſs too far advanced. If the *Scurvy* is of the *acid* or *cold Kind*, a Grain or two of *Salt of Steel* may be added to each Doſe of the *Balſamic Pills*; if of the ſalt Kind, *Mynſicht's Extract of Steel* is preferable. But in all Kinds the *Chalybeate Mineral Waters* are better than any artificial Preparation in the Summer-time, and ſhould be drank every Year.

If *the Body is bound*, the purging Mineral Waters are convenient, or a Scruple of *Gum of Aloes*, with eight Grains of *Storax Pills*, may be taken once a Month, at Bed-time.

A *Milk-Diet* is rather hurtful than beneficial.

Smoaking Tobacco ſhould be forborne.

An

An *Aſthmatic Conſumption* is principally known from others, by an almoſt conſtant Wheezing, and extreme Difficulty of Breathing. Very old Perſons, who are not carried off by an acute Diſeaſe, generally die of this, but not without a preceding Cough, Shortneſs of Breath, Decay of Fleſh, and a Diſpoſition inclinable to a Hectic.

A *Milk-Diet* and *Opiates* are hurtful in this Caſe; even a Grain of *Laudanum* would endanger the Patient's Life. A fine, thin, wholeſome Air is of the greateſt Service.

Inciding Pectorals are good; *Incraſſants* bad; *Honey*, *Hydromel*, *Balſams*, *Gums*, *Millepedes*, are uſeful; but more eſpecially our *Balſamic Pills*. When this Diſeaſe proceeds from a *Convulſive Aſthma*, Hart's-horn Drops will be beneficial.

In a violent *Aſthmatic Fit*, Bleeding is neceſſary as far as the Patient's Strength will bear, though he be never ſo much emaciated; as alſo ſome Spoonfuls of equal Parts of *Oxymel Scillit.* & *Aq. Cinnam. Spir.*

A *Conſumption* proceeding from *Hypochondriac* and *Hyſteric Affections* is diſtinguiſhed from others, by an Oppreſſion of the Breaſt, by unuſual Sadneſs or Melancholy, by frequent *Hyſteric* Fits, Faintings, and other nervous Symptoms.

Beſides the general Method of Cure, *Antihyſterics* muſt be given, ſuch as Spirit of *Hartſhorn*, Spirit of *Sal Ammoniac*, Tincture of *Caſtor*, and more eſpecially *Chalybeate Mineral Waters*; for without *Chalybeates*, all other Medicines are vain; but they muſt be given before, not after, an Ulcer of the Lungs appears. A *Milk-Diet* and Purging are very improper, unleſs the latter is exceeding mild. *Gentle Emetics*, proportionable to the Patient's Strength, relieve to a Miracle in the Beginning of the Diſeaſe.

Opiates are neceſſary to appeaſe the *Spaſms* of the Stomach, Inteſtines, and other Parts, and to procure Sleep.

A *Conſumption* from the *Lues Venerea* is of the aſthmatic Kind, and is attended with a viſcous Phlegm, and Difficulty of Breathing, more than a troubleſome Cough; and is therefore ſlow in its Progreſs.

In the *Cure*, Antivenereals muſt be mixed with Pectorals; or a Salivation, if the Patient's Strength will admit, may be proper; otherwiſe there is nothing to be hoped for but from a Milk Diet, the Decoction of *Sarſaparilla*, or *Balſamic Pills*; and gentle Purges with *Calomel* at proper Intervals. [Nothing can be depended upon ſo much in this Diſeaſe, as *Sarſaparilla*, eſpecially if the Cure has been attempted with Mercurials before, which is almoſt always the Caſe. It will be beſt made in the following Manner: Boil three Ounces of *Sarſaparilla*, and

half an Ounce of *Liquorice*, in three Quarts of Water, till there remains one of the ſtrained Liquor. This Quantity muſt be taken every Day, either warm or cold, and muſt be made freſh every other Day. The *Sarſaparilla* muſt be got as freſh and as ſound as poſſible. It mutt be continued forty Days, or longer.]

A *Conſumption* proceeding from the *Green-Sickneſs*, and a Suppreſſion of the *Menſes*, is particularly attended with *terrible Prickings*, and *violent Pains* in the Side. This is the common Source of *Female Conſumptions*.

In the Beginning of the *Green-Sickneſs*, it will be proper to purge with *Tinctura Sacra*, and give *Chalybeates* to promote the menſtrual Flux. But if the *Tabes* is actually begun, theſe Medicines will do more Harm than Good: Therefore the Patient muſt be treated in the common Method, and the Pains in the Side muſt be appeaſed with Liniments and hot Fomentations; and when ſhe is recovered, her *Menſes* will return ſpontaneouſly. *Morton.*

There are other *Symptomatic Conſumptions*, but as their Cure depends on that of the original Diſeaſe, they need not be treated of in particular.

Of an Empyema.

AN *Empyema* is a Collection of purulent Matter in the Cavity of the *Thorax*, between the *Lungs* and the *Pleura*, which always ſuppoſes the breaking of a *Vomica* into the ſaid Cavity.

Such are the *Vomicæ*, or *Abſceſſes of the Lungs*, proceeding from Inflammations, from ſpitting of Blood, from a thick Matter which cannot be expectorated. *Of the Pleura*, from an Inflammation, from a Wound therein, healed outwardly but open inwardly; from a Bruiſe, or a concealed Rupture of it, turning to Pus. *Of the Diaphragm*, when, after an Inflammation, it ſuppurates, and breaks on its upper Part. Alſo *of the Mediaſtinum* and *Pericardium* affected in the like Manner.

An *Empyema* may be foreſeen from an Inflammation of any of the above-mentioned Parts, which is not terminated and reſolved by Concoction, Revulſion, a Criſis or Medicines, but is followed by Shiverings, a *Febricula* encreaſing at Night, a wandering Heat, a Senſe of Heavineſs in the Part that was pained, a Difficulty of Breathing, a Want of Appetite, and an unuſual Thirſt.

An

An *actual Empyema* is known from twenty Days being elapſed ſince the Inflammation began, without Expectoration of the Matter, from the Signs of a *Vomica* in the five abovementioned Parts diſappearing; from a new Pain, Cough, Difficulty of Breathing, and Spitting ariſing, and afterwards going off. From a dry Cough, a Weight on the Diaphragm, not being able to lie but on one Side, a Noiſe made by the Fluctuation of the *Pus*, upon moving the Body, from a ſlow Fever, a Fluſhing in the Cheeks, hollow Eyes, Heat in the Ends of the Fingers, Crookedneſs of the Nails, and a Swelling of the *Abdomen*.

The Conſequences of this Diſeaſe are, a continual Accumulation of *Pus* from the Ulcer not yet healed. The Matter encreaſing in its Acrimony, Putrefaction, rank Smell, and Thinneſs, by being ſhut up in a hot, moiſt Place. An Impediment in raiſing the Diaphragm and extending the Lungs. A Shortneſs and Difficulty of Breathing, and not eaſily performed unleſs in an erect Poſture; a Dread of Suffocation when laid down; an Inability of lying, but on the affected Side; a conſtant dry Cough, with Anxiety; a Maceration and Corroſion of the *Lungs*, *Pleura*, *Diaphragm*, *Pericardium*, and even of the *Heart* itſelf, converting them gradually into filthy Corruption; whence a Hectic Fever, quick, ſmall Pulſe, conſtant Redneſs of the Cheeks, Loſs of Appetite, perpetual Thirſt, extreme Weakneſs, and Fainting Fits. Hence all the Fluids become unfit for Nutrition, Circulation, or any other Office: The Conſequence of which is, a Waſting of the whole Body, a Putrefaction of the Fluids, which may be diſcharged through the corroded Lungs, or carried downwards by a fatal, ſanious Diarrhœa; Night Sweats, Puſtules in the Face, crooked Nails, a ſhining Yellowneſs of the Skin, and a Hippocratic Countenance.

The *Cure* of this Diſeaſe is different, according to its different Cauſe and State.

When a *Vomica* or Abſceſs is known to be formed in any of the Parts before mentioned, all Endeavours are to be uſed, that it may be ſpeedily broken and determined to the outward Parts, which muſt be attempted by actual or potential Cauteries, or by Inciſion and proper Motion.

When the *Vomica* is actually broke, then it is to be evacuated by the *Mouth*, if Nature ſeems to encourage it; or by *Urine*, if there appear any Signs in it of paſſing that Way; or by an *Aperture of the Thorax* by a proper Inſtrument, on the Side affected, between the fifth and ſixth Ribs, or the fourth and fifth reckoning from below, letting the Pus out ſlowly,

and at ſeveral Times, and then cleanſing the Cavity by Injections of Decoctions with Honey, which done, the Wound is to be healed, at the ſame time giving Plenty of vulnerary Decoctions inwardly, of ſuch Things as deterge and reſiſt Putrefaction.

Sharpe has no good Opinion of this Operation, for he ſays he has opened ſeveral Perſons who have died of a Conſumption of the Lungs from an Abſceſs, which had conſumed a great Part of the Lungs, and he does not remember to have found any Pus lodged in the Thorax. Beſides, continues he, it is evident, that many who die conſumptive, die of the Diſcharge they ſpit up from the Lungs, and therefore we ought not to undertake any Operation which promiſes ſo little Succeſs. There may, I own, be Abſceſſes formed between the Lungs and the *Mediaſtinum*, which may fall into the Cavity of the Thorax; but then if the Pus is ſmall in Quantity, it may be abſorbed by the Lungs themſelves; and if there is much, the Operation will be of little Service. Beſides, theſe Caſes are very rare, and the Symptoms of Pus being fallen upon the Diaphragm are very equivocal, and therefore I think the Operation ſhould be omitted, though the *Empyema* is ſuppoſed actually to exiſt.

In general, all Inflammations of the Lungs or Pleura are followed by an Adheſion of theſe Parts, which allow Nature to make a Paſſage externally: And it is common in Abſceſſes of the Pleura and intercoſtal Muſcles to find them break outwardly, nor is it uncommon even in the Lungs. Therefore when there is an Adheſion, no other Operation is neceſſary than to open the Tumour with a Lancet, when the Pus is formed; and if the Suppuration is ſo plentiful as not to admit the healing of the outward Ulcer it may be kept open with a hollow Tent. Thus many Perſons have lived a long while with a running Fiſtula.

If the *Pus* is white, ſmooth, equal, not fetid, nor diſcolouring the Probe; if the Patient is without Fever, Thirſt, or a Diarrhœa, if his Appetite and Digeſtion are good, and he is well in other Reſpects, the Air ſhould be hindered as much as poſſible from entering the Thorax, and then the Patient may recover.

But if it is dark coloured, ichorous, mixed with Fibres, ſtinking, bloody, changing the Colour of the Probe like Fire, and burſting out all at once, there is the greateſt Danger of Death, or a Conſumption.

If the *Mediaſtinum* is eaten through, upon opening the Thorax, a ſudden Suffocation often enſues.

If the *Empyema* is of long ſtanding, the Strength is decayed, the Hair falls off, and there is a colliquative Diarrhœa, with a waſting

waſting of the Body, the Operation generally haſtens the Death of the Patient.

Hoffman gives an Inſtance of a Perſon, who, after a *Peripneumony*, fell into an *Empyema*, and was cured by taking Milk boiled with Sugar of Roſes. The Quantity was three Pints a Day. As alſo *Balſamic Pills*, made of *Flowers of Sulphur*, *Oil of Sweet Almonds*, *Sperma Ceti*, *Venice Turpentine*, *Saffron*, and Oil of Aniſeed. Likewiſe a Powder made of Crabs-Eyes, Sperma Ceti, Sugar, Myrrh, Liquorice-Powder, and Bole Armoniac.

Of the Cachexy, *or ill Habit of Body.*

BY a *Cachexy* is generally underſtood that Diſpoſition of Body, which depraves the Nouriſhment thereof throughout its whole Habit.

The Cauſes of which are, any bad State of the nutritious Juices, or a Fault in the Veſſels deſigned for its Reception, or a Defect of the aſſimilating Faculty.

The *nutritious Juices may be depraved*, by the Nature of the Aliments which cannot be ſufficiently changed by the digeſtive and aſſimilating Faculties: ſuch are the farinaceous and leguminous Foods, and things that are groſs, fibrous, fat, acrid, aqueous, and viſcid. Things in their own Nature indigeſtible, as Turf, Chalk, Lime, Coal, Sand, &c. By a Defect of bodily Motion, from Reſt, Lazineſs, or too much Sleep. By too great a Weakneſs or Rigidity of the Organs of Digeſtion; or by a Fault in the Fluids themſelves not to be eaſily rectified. Many things may contribute to theſe Defects, ſuch as all profuſe Evacuations and Secretions, of what Kind ſoever; a Vomiting, Looſeneſs, Bloody Flux, Hæmorrhages, Schirrous Diſorders of any of the *Viſcera*, a Retention of Things which ought to be evacuated.

Hence it is evident, that theſe Cauſes act, by diminiſhing the Solids, or ſtuffing them with Humours which are apt to ſtagnate; whence there proceed two remarkable Effects of this Diſorder; *viz.* a *Conſumption*, or a *Leucophlegmatia*, and an *anaſarcous Dropſy*.

Many Diſorders ariſe from hence, according to the various Colour, Quantity, Tenacity, Acrimony, or Fluidity of the diſtempered Humour; as a white, pale, yellow, tawney, red, green, livid, black Colour of the Skin, a Heavineſs, a Swelling under

the Eyes, and of the moſt tender Parts; and thoſe moſt remote from the Heart become bloated and œdematous; there is a Palpitation of the Heart and Arteries, which increaſes upon the leaſt Motion; the Urine is crude and thin; the ſpontaneous Sweats are evidently aqueous; at laſt the Body is either reduced to a Skeleton, or it is affected with a *Leucophlegmatia*, and a Dropſy.

An univerſal Fault of the Veſſels deſigned to receive the nutritious Fluids, can hardly be ſuppoſed; however, they may be too contractile or lax, and the Diſorders that proceed from thence may be looked upon as the Cauſes of this Diſeaſe.

The Nouriſhment of the whole Body may be hindered, by a Fault in the aſſimilating Faculty, if the Force by which the Fluids are circulated, is too languid or too violent.

From what has been ſaid, the diagnoſtic Signs are evident; and the Prognoſtics may be gathered from the Conſideration of the Cauſe, Duration, the Effects and Degree of the Diſeaſe.

The Cure ſometimes requires a Correction of the too acid Fluid, and a moderate Inſpiſſation thereof: When it is tenacious and ſtagnating, it muſt be diſſolved and rendered fluxile. But the Medicines muſt be varied according to the various Cauſes from whence theſe two Faults ariſe.

The greateſt Care muſt be taken, that the Aliment be moſt like the healthy Fluids, and eaſy of Digeſtion, contrary to the Cauſe of the Diſeaſe, and agreeable to the Palate of the Patient.

Digeſtion ſhould be promoted by Aromatics, Wine, and Air. The Organs of Digeſtion ſhould be diſpoſed to perform their Office by mild Digeſtives, then by Vomits and Purges, and by Medicines which corroborate and promote Digeſtion.

When by the Uſe of theſe the Body is looſened, and the morbific Matter attenuated, then you muſt proceed to Attenuants, Diuretics, and Sudorifics. Laſt of all, Chalybeates, alkaline, and ſaponaceous Medicines muſt be uſed, with Walking, Riding, Frictions, and Baths.

When a *Conſumption* and a *cachectic Tabes* ariſe from too great an Acrimony, the Nature of the Acrimony muſt be enquired into, by endeavouring to find out the Cauſe of the Cachexy, and the Conſtitution of the Patient; by obſerving the Symptoms and the Excretions. Theſe being known, they are to be corrected by their Contraries. *Boerhaave.*

[To *attenuate the pituitous or viſcid State of the Blood and Humours*, Salt of Wormwood, Tartar Vitriolate, *Nitrum ſtibiatum*, *Sal diureticus* *, *Spiritus Mindereri*, are efficacious, or the following Powder:

* The old Name for *Sal Diureticus* is *Terra Foliata Tartari.*

I. R.

℞. *Sal. Diuret. Tartar. Vitriolat. Nitr. puriſſ. Sal. Ammon. an.* ʒj. *Ocul. Cancror. ppt.* ʒij. *M. F. Pulvis de quo* ʒſs. *ſingulis Diebus manè & circa quartam pomeridianam cum ſufficiente Vehiculo ſumenda eſt.*]

For the ſame Purpoſe may be uſed, *Gum Ammoniac* and *Galbanum*, as alſo Preparations of *Myrrh*, *Aloes*, and *Amber*. Likewiſe bitter Herbs, as *Wormwood*, *Carduus Benedictus*, the *leſſer Centaury*, *Marſh Trefoil*, *Roſemary*, *Sage*, *Maidenhair*, and the *antiſcorbutic* Herbs; add to theſe, the Decoction of the Wood of *Guaiacum*, *Saſſafras*, *Juniper*, *yellow Sanders*, and *Spices* of all Kinds. *Heiſter.*

Saponaceous Remedies ſhould precede all the reſt, for they not only cleanſe the Body, but have wonderful Efficacy in diſſolving glutinous Humours. *Huxham.*

Of the Scurvy.

THIS Diſtemper chiefly affects the Inhabitants of cold northern Countries, and eſpecially thoſe who live in marſhy, low, fat, and moiſt Soils, near ſtagnating Water, whether freſh or ſalt. Thoſe who live idle, ſedentary Lives, are moſt ſubject, chiefly in the Winter, to the Attacks of this Diſeaſe; as alſo thoſe who feed upon ſalted and ſmoak-dried Fleſh or Fiſh, Sea-Biſcuit, ſtinking Water, unfermented, farinaceous Vegetables, Peaſe, Beans, ſharp Salt, old Cheeſe; likewiſe thoſe who are ſubject to melancholic, maniacal, hyſteric, or hypochondriacal Diſorders; or thoſe who have taken large Quantities of the *Peruvian* Bark. *Boerhaave.* [This is a great Miſtake.]

It is known by *ſpontaneous Wearineſs*, *Heavineſs of the Body*, *Difficulty of Breathing*, eſpecially after bodily Motion; *Rottenneſs of the Gums*, *a ſtinking Breath*, *frequent Bleeding of the Noſe*, *Difficulty of Walking*; ſometimes a *Swelling*, ſometimes a *falling away of the Legs*, in which there are always *livid*, *plumbeous*, *yellow*, or *violet coloured Spots*; the *Colour of the Face* is generally of a *pale Tawny*. *Sydenham.*

The *firſt State* of this Diſeaſe begins with unuſual Lazineſs, ſpontaneous Wearineſs; the Patient loves to be in a ſitting or lying Poſture; there is a Pain in all the Muſcles, as if he was over-tired, eſpecially of the Legs and Loins; when he wakes in the Morning, all his Joints and Muſcles ſeem to be tired and bruiſed.

In

In the *ſecond State*, the Gums ſwell, grow painful, hot, and itching, and bleed upon the leaſt Preſſure; the Roots of the Teeth become bare and looſe; he feels Pains in all the external and internal Parts of the Body, imitating Diſtempers proper to the various Parts.

In the *third State*, the Gums at length grow putrid, with a cadaverous Smell; when they are inflamed, Blood diſtils from them, and a Gangrene enſues; the looſe Teeth by degrees grow yellow, black, and rotten; the ſublingual Veins become varicous, and like Rings; there are often *fatal Hæmorrhages*, which break out from the *external Skin*, without any Appearance of a Wound, from the *Lips*, *Gums*, *Mouth*, *Noſe*, *Lungs*, *Stomach*, *Liver*, *Spleen*, *Pancreas*, *Inteſtines*, *Womb*, *Kidneys*, &c. Obſtinate Ulcers ariſe, of the very worſt Kind, which no Applications will cure, and which are apt to turn to a Gangrene; they break out in all Parts, but eſpecially the Legs, and are attended with a Stench. There is a Kind of an Itch and dry Scabs, with a dry and mild Leproſy. The Blood drawn from a Vein is black, grumous, thick, and yet wants its due Conſiſtence in the fibrous Part; the *Serum* is ſalt, ſharp, and abounding with a yellowiſh green *Mucus* on its Surface: There are gnawing, rending Pains, quickly ſhifting from Place to Place, which grow more violent in the Night, affecting all the Joints, Bones, and *Viſcera*.

In the *fourth State*, there are Fevers of various Kinds, which bring on an Atrophy; ſometimes Diarrhœas, Dyſenteries, or violent Stranguries; as alſo Faintings and mortal Anxieties, a Dropſy, Conſumption, Convulſions, Trembling, a Palſy, Contractions, black Spots, voiding of Blood upwards and downwards, a Putrefaction and Conſumption of the Liver, Spleen, Pancreas, Meſentery. Now the Contagion ſpreads very quick. *Boerhaave*.

The firſt Sign of the Approach of this Diſeaſe is commonly a Change of Colour in the Face, which becomes pale or yellowiſh, and bloated, with a Liſtleſſneſs, and an Averſion to Exerciſe. The Caruncles of the Eyes appear of a greeniſh Caſt, and yet in other Reſpects the Patient ſeems in perfect Health. However, the Change of Colour in the Face does not always precede the other Symptoms, though it conſtantly attends them. Then a univerſal Laſſitude ſupervenes, and a Stiffneſs and Feebleneſs of the Knees, with a Difficulty of Breathing on the leaſt Motion. Soon after this there is an Itching of the Gums, which ſwell and are apt to bleed on the leaſt Friction. Then they become livid, ſoft, and ſpungy, and afterwards extremely putrid and fungous. This Rottenneſs of the Gums is an inſeparable

ſeparable Sign of this Diſeaſe. Theſe are not only ſubject to bleed, but there are Hæmorrhages from different Parts of the Body.

The Skin is dry throughout the whole Courſe of this Diſeaſe, except towards the laſt, and in many it is rough. In ſome it appears like the Skin of a Gooſe; but it is moſt frequently ſmooth and ſhining. It is ſtained with blue, purple, livid, or black Spots, ſome of which are ſmall, and others of a Hand's Breadth, when the Diſeaſe is advanced. They are chiefly on the Legs and Thighs, but ſometimes on the Arms and Trunk of the Body. Some have a Swelling of the Ancles in the Evening, which diſappears in the Morning. In a little Time it advances gradually up the Leg, and the whole Member becomes œdematous. Hurts, Bruiſes, Wounds healed up, and fractured Parts, always become ſcorbutic firſt. Old Ulcers will emit a thin fetid Sanies, mixed with Blood, and at length coagulated Gore will lie on the Surface of the Sore like a Cake. As the Diſeaſe increaſes, they ſhoot out a ſoft, bloody Fungus, reſembling Bullock's Liver, which ſometimes will riſe to a monſtrous Size in a Night's Time. The ſlighteſt Wounds and Bruiſes of ſcorbutic Perſons degenerate into ſuch Ulcers, and are eaſily diſtinguiſhed from all others, by being putrid, bloody, and fungous. Other Symptoms ſupervene, but theſe are ſufficient to diſtinguiſh the Scurvy from all other Diſeaſes.

To prevent the Scurvy at Land, it will be proper to chooſe a warm, dry, pure Air, with a Diet of eaſy Digeſtion, conſiſting chiefly of a due Mixture of animal and vegetable Subſtances; for thoſe are moſt liable to it who live in marſhy, wet Soils, and in Places ſubject to great Rains and Fogs, or in damp, low Apartments, unleſs they keep conſtant Fires, and their chief Food be Fleſh-Broths, with Plenty of freſh Greens or Vegetables, and well-baked Bread made of Wheat-Flour; as alſo a chearful Glaſs of ſome good wholeſome fermented Liquor. Cleanlineſs, entertaining Amuſements, and moderate Exerciſe, will alſo be good Preſervatives in theſe Caſes. In Garriſons, the Soldiers ſhould be kept as dry, clean, and warm as poſſible, and their Proviſions ſhould be as wholeſome as can be procured, with Plenty of good Vegetables, particularly Sallads of Garden-Creſſes.

The beſt Method of preventing the Scurvy at Sea, will appear from the Effects which Dr. *Lind* has obſerved ſeveral Medicines have had, eſpecially thoſe which have been greatly recommended as Preſervatives. On the 20th of *May*, 1747, being on board the *Saliſbury*, at Sea, he took twelve ſcorbutic

tic Patients under his Care. They had putrid Gums, Spots, and Laſſitude, with Weakneſs of their Knees. They had a proper Apartment in the Fore-hold; their Diet was Water-Gruel, ſweetened, in a Morning, ſometimes Mutton-Broth for Dinner, ſometimes light Puddings, boiled Biſcuit with Sugar, *&c.* and for Supper, Barley and Raiſins, Rice and Currants, Sago and Wine, and the like. Two of theſe were ordered each a Quart of Cyder in a Day. Two others twenty-five Drops of *Elixir Vitrioli* three Times a Day, upon an empty Stomach, uſing a Gargle acidulated with the ſame. Two others took two Spoonfuls of Vinegar three Times a Day; having their Gruels, other Food, and Gargles, well acidulated with it. Two of the worſt Patients, with the Tendons of the Ham rigid, were put under a Courſe of Sea-Water, and drank about a Pint every Day, more or leſs, according to its Operation, which was intended to be a gentle Phyſic. Two others had each two Oranges and one Lemon given them every Day, which they eat with Greedineſs upon an empty Stomach, at different Times. This Courſe was continued but ſix Days, becauſe no more Fruit could be allowed. The two remaining Patients took the Bigneſs of a Nutmeg, three Times a Day, of an Electuary made of Garlic, Muſtard-Seed, Balſam of *Peru*, and Gum-Myrrh; uſing for common Drink Barley-water well acidulated with Tamarinds; by a Decoction of which, and Cream, they were gently purged three or four Times during the Courſe.

The Oranges and Lemons had the beſt Effect; for one of thoſe who had taken them, was, at the End of ſix Days, fit for Duty; and he took nothing more but a Gargle of the Elixir of Vitriol for his Gums, which were not quite ſound, and ſo recovered his Health entirely. The other, being more recovered than any of the other Patients, was appointed to look after them. Next to the Oranges I judged the Cyder had the beſt Effects, though it was not very good, being pricked; for thoſe who drank it were in a fairer Way of Recovery at the End of the Fortnight, the Time allowed for making the Experiments, than any of the reſt. Elixir of Vitriol did no good unleſs as a Gargle, nor yet any of the reſt of the Medicines. Oranges, in my Opinion, are preferable to Lemons, for by theſe the Lord *Anſon*'s People were ſo ſpeedily and ſurprizingly recovered at the Iſland of *Tinian*. Beſides, Mr. *Murray* affirms, from Experience, that Oranges and Lemons, when properly and ſufficiently uſed, are an infallible Cure in every Stage and Species of this Diſeaſe, if there is any Degree of natural Strength left, and where a

Diarrhœa,

Diarrhœa, Lientery, or Dyſentery are not joined to the other Symptoms. He obſerves farther, that at the Iſland of *St. Thomas*, fifty Men belonging to the *Canterbury*, and ſeven to the *Norwich*, who were in all the different Stages of this Diſtemper, were cured in a little more than twelve Days.

Some, who are fond of Theory, will be apt to ſay, theſe are Acids, and then Tamarinds, Vinegar, Spirit of Salt, Elixir of Vitriol, and others of the ſame Tribe, will do as well; but Experience plainly ſhews the contrary; and though Acids agree in certain Properties, they differ widely in others. Beſides, if theſe Fruits have been given without Succeſs, it is becauſe Legions of Diſeaſes have been miſtaken for the Scurvy; whereas, in the real genuine Scurvy, they have been never known to fail; not to mention that the Virtues of Oranges and Lemons, in this Caſe, have ſtood the Teſt of near two hundred Years. However, we muſt not forget to obſerve, that freſh Vegetables of all Kinds have proved a very great Relief to ſcorbutic Patients, when ſet on Shore.

But as Oranges and Lemons are apt to ſpoil, I ſhall ſhew how to bring their Juices, by a very eaſy Method, into ſmall Quantities, without Prejudice to their Virtues. Let the Juice of theſe Fruits be well cleared from the Pulp, and depurated by ſtanding ſome Time; after which it may be poured off from the groſs Sediment. Le it then be poured into any clean open Veſſel of China or Stone Ware, which ſhould be wider at the Top than at the Bottom, that it may evaporate more readily. But a China Baſon or Punch-Bowl is moſt proper, on account of the Form. Put this into a Pan of Water over a clear Fire; let the Water come almoſt to boil, and continue nearly in that State, with the Bowl full of Juice in the Middle of it, till the Juice is found of the Conſiſtence of a thick Syrup when cold. The ſlower the Evaporation of the Juice is, the better; that is, it ought to continue twelve or fourteen Hours over the Fire: When it is cold, it is to be corked up in a Bottle for Uſe. Two Dozen of good Oranges, weighing five Pounds four Ounces, will yield one Pound nine Ounces and a Half of depurated Juice; and when evaporated, there will remain five Ounces of Extract, which in Bulk will be equal to leſs than three Ounces of Water. So that twelve Dozen of Oranges may be put in a Quart Bottle, and preſerved ſeveral Years. The ſame may be ſaid of Lemons. When this is mixed with Water, and made into Punch, few are able to diſtinguiſh it from the freſh Juice mixed up in the ſame Manner. However, when the freſh Fruit can be had, the Fragrancy of the Peel may contribute ſomewhat to the

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Cure of the Scurvy; and when theſe are wanting, the ſame thing may be obtained from a few Drops of their Eſſence, or the aromatic Oil contained in their Rinds; and if a ſmall Quantity of this be added to the Extract, it will give it the Smell and Fragrancy of the freſh Fruit in great Perfection. Or rather add a little of the outer Peel to the Extract, a little before it is taken off the Fire, and then the niceſt Taſte will not be able to diſtinguiſh the Difference between the freſh Fruit and this. The Virtues of this Extract, thus made, lie in ſo ſmall a Compaſs, that a Bottle will ſerve one Man at Sea ſeveral Years; for in the making of it there is little or nothing flies off beſides the Water.

It will likewiſe be of great Uſe to Seamen to have Gooſeberries, and the like, preſerved in Bottles in the ſame Manner as the Paſtrycooks; as alſo ſmall Onions pickled in Vinegar, Cabbage, French Beans, *&c.* may be preſerved by putting them in clean, dry ſtone Jars, with a Layer of Salt at the Bottom, then a thin Layer of the Vegetable covered with Salt, and ſo alternately till the Jar is full. Then the whole muſt be preſſed down with a Weight, and its Mouth quite ſtopped that no Air or Moiſture may enter. Thus the Vegetable may be kept freſh and green for a whole Year. At the time of uſing, the Salt is to be waſhed off with warm Water. This is the Manner by which they preſerve that never failing Remedy, *Greenland* Scurvy-graſs. Every common Sailor ought to lay in a ſtock of Onions, for they are a great Preſervative at Sea. The *Dutch* Sailors are preſerved from the Scurvy by pickled Cabbage. Portable Soup may be carried to all Places. When the Scurvy begins to make its Appearance, Sailors ſhould be abridged in the ſame Degree of their Allowance of Beef and Pork, and eat them with Muſtard and Vinegar; but the Peaſe ought always to be ſerved out in full Allowance. It muſt be obſerved, likewiſe, that a Soup of boiled Cabbage and Onions will cure an adventitious Scurvy in its firſt Stage, either at Land or Sea, in any Part of the World.

Beſides freſh and preſerved Fruits and Vegetables, fermented Liquors of all Sorts are good, but more particularly Cyder. Among theſe are included many Wines of every Kind; or the Juices of Fruits may be fermented with Ale. Poor People that winter in *Greenland*, under vaſt Diſadvantages in point of Air and Diet, preſerve themſelves from the Scurvy by Spruce Beer, which is their common Drink. Likewiſe the ſimple Decoction of Fir-Tops has done Wonders. The Shrub Black Spruce of *America* makes this moſt wholſome Drink juſt mentioned, and affords a Balſam ſuperior to moſt Turpentines. It is of

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the Fir Kind. A ſimple Decoction of the Tops, Cones, Leaves, or even of the green Bark or Wood of theſe, is an an excellent Antiſcorbutic; but perhaps it is much more ſo when fermented, as in making Spruce Beer. This is done by Moloſſes, which, by its diaphoretic Quality, makes it a more ſuitable Medicine. By carrying a few Bags of Spruce to Sea, this wholſome Drink may be made at any Time. But when Spruce cannot be had, the common Fir-Tops uſed for Fuel in the Ship ſhould be firſt boiled in Water, and then the Decoction ſhould be fermented with Moloſſes; to which may be added a ſmall Quantity of Wormwood, and Root of Horſe-radiſh. The freſher it is drank, the better. When other Things are wanting, Tar-water may be fermented in the ſame Manner.

Thoſe who have been weakened by long Fits of Illneſs, ſhould have the Scurvy prevented by Panada of Bread newly baked, with a few Drops of the Extract of Lemons, and a Spoonful of Wine; as alſo Oatmeal and Rice, Gruels, Flummery, ſtewed Barley, with Raiſins or Currants, Sago, and Wine, *&c.* but more particularly pickled green Cabbage, and ſmall Onions boiled with the Portable Soup made weak. Moſt of their Food ought to be acidulated with Orange and Lemon Juice; and then, as the Strength increaſes, they ſhould be indulged with more ſolid Food. But before this, they ſhould have a ſmall Quantity at a Time and often; and they ſhould be brought back to their Labour by little and little. Exerciſe on a Deal board, with the Ends laid on two Cheſts, will be very proper; becauſe it promotes the Circulation, and ſtrengthens the Fibres, without any Loſs of Spirits.

Bad Air of any Kind has a bad Effect upon a Ship's Crew; to remedy which, a red hot Loggerhead ſhould be put into a Bucket of Tar, and moved about; ſo that all the Ship, once or twice a Day, ſhould be filled with this wholſome antiſeptic Vapour. In a moiſt Air, whatever promotes Perſpiration is proper, ſuch as dry Linen, Cleanlineſs, uſing the Fleſh-bruſh, Garlic or raw Onions before they go into the Rain, and keeping the Bedding dry. Plenty of Muſtard and Onions ſhould be uſed with their Victuals.

The Cure of this Diſeaſe has been, in a great Meaſure, anticipated by the Means of Prevention, inſomuch that little remains to be ſaid about it. The Diet ſhould be light and eaſy of Digeſtion, ſuch as Broths or Soups made of freſh Meat, with Plenty of Vegetables, ſuch as Cabbage, Coleworts, Leeks, Onions, *&c.* The Bread ſhould be freſh and well baked, and Sallads of all Kinds are beneficial, but more particularly

ticularly Dandelion, Sorrel, Endive, Lettuce, Fumitory, and Purſlane. To which may be added, Scurvy Graſs, Creſſes, or the like, to correct the cooling Qualities of the former. Summer Fruits are all good, as Oranges, Lemons, Citrons, Apples, *&c.* The Drink may be good ſound Beer, Cyder, or Rheniſh-Wine. Phyſic is never neceſſary if the freſh Broths and Greens keep the Belly open, and paſs freely by Urine, Sweat, and Perſpiration. If otherwiſe, the Patient may take a Decoction of Tamarinds and Prunes, with a diuretic Salt; and, on intermediate Days, he may be ſweated with camphorate Boluſes of Theriac, and warm Draughts of a Decoction of the Woods, or twelve or fifteen Grains of the Squill Pills of the *Edinburgh* Diſpenſatory.

Milk of all Sorts, if it agrees with the Conſtitution, will be very beneficial, as well as Whey, which is preferable. *Sal Polychreſt* is uſeful, as a mild Purgative and excellent Diuretic. The ſcorbutic Juices, qualified with the Juice of *Seville* Oranges, are proper, eſpecially mixed with the clarified Whey, with Sweating twice or thrice a Week, with the ſaid Juice mixed with Sack-whey; for this is an Evacuation which ſcorbutic Perſons bear the beſt. When there is no Danger of an Hæmorrhage, warm Baths, with Roſemary, Marjoram, Thyme, *&c.* may be good. In the Winter Time, genuine Spruce Beer, with Lemon and Orange Juice, is proper; or antiſcorbutic Ale, made of an Infuſion of Wormwood, Horſe-radiſh, Muſtard-Seed, and the like; and it may be made laxative with the Addition of Sena. It muſt be drank while pretty freſh or new. *Van Swieten* ſays, he has often ſeen whole Families cured of the Scurvy in *Holland*, by the Uſe of a Caſk of Ale, in which were put Heads of a Red Cabbage cut ſmall, twelve Handfuls of Creſſes or Scurvy Graſs, and a Pound of freſh Horſe-radiſh previouſly infuſed.

When the Gums begin to itch, and are ſpungy, uſe a Gargle of the Bark, infuſed in Brandy. When the Putrefaction increaſes, uſe Barley-water and Honey of Roſes, acidulated with a mineral Acid. The Fungus muſt be kept down, and, when neceſſary, cut away. The Ulcers of the Gums muſt be checked with a Touch of Spirit of Salt, or Oil of Vitriol diluted. When the Legs are ſwelled, or œdematous, gentle Frictions are to be uſed at firſt with warm Flannel, or with Woollen Cloths, charged with the Fumes of *Benjamin* and Amber, provided the Swelling be ſmall, ſoft, and not very painful, rolling them up afterwards with an eaſy Bandage from below upwards: But if they are much ſwelled, ſtiff, and painful, they muſt be fomented with a diſcutient Fomentation, or rather the Steam of

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the Fomentation ſhould be received through a Blanket rolled round the Limb. This Operation, repeated Night and Morning, will render the contracted Joints ſupple. After this has been continued for half an Hour, the Parts are to be anointed with Palm Oil. If a vegetable Diet does not reduce the Limb, ſweat it with burning Spirits, or Bags of warm Salt.

Ulcers of the Legs muſt be treated with very gentle Compreſſion, to keep the Fungus under, and the ſame Applications muſt be uſed as to the rotten Gums. Mr. *Murray* has found a ſtrong Tincture of the Bark of great Service in ſcorbutic Ulcers. In dangerous Hæmorrhages, the mineral Acids muſt be given by a little at a Time, and often; ſuch as the Spirit of Elixir of Vitriol, together with ſmall Doſes of the *Peruvian* Bark. Theſe likewiſe, with Red Wine, are the principal Things to be relied upon in putrid and colliquative Fevers of the ſcorbutic Type. All ſorts of Pains, whether fixed or wandering, yield beſt to the general Method of Cure.

A ſcorbutic Diarrhœa ſhould not be ſuddenly ſtopt at Sea, but the peccant Humour muſt be gently evacuated with ſmall Doſes of Rhubarb, and the Perſpiration kept up with a little Theriac or Diaſcordium, with other warm, diaphoretic, and ſtrengthening Medicines. In extreme Caſes, Opium may be given more freely. The Diet muſt be glutinous and ſubaſtringent, with ſtrong rough red Wine diluted. Sometimes five Grains of Allum may be given with the Diaſcordium, eſpecially when Blood is evacuated in great Quantities. The moſt effectual Remedy, in ſcorbutic Dyſenteries, is an Infuſion of Ipecacuanha in Brandy, given in ſmall Doſes, and often repeated. Scorbutic Conſumptions at Land require Bliſtering and Iſſues, as alſo riding on Horſeback in the Country Air, and an entire Milk and Vegetable Diet, beſides keeping the Breaſt open by Expectorants, ſuch as Oxymel of Squills, Gum Ammoniac, and Balſam of Capivi. Diſorders which remain after the Cure of the Scurvy, are to be treated in the common Way, with a Mixture of antiſcorbutic Medicines. *Lind.*

It ought to be laid down as a general Rule, that the *Scurvy*, the moſt violent of all chronical Diſtempers, is not to be treated with draſtic, but with the moſt mild and ſimple Medicines. Likewiſe the Patient ought to change the Air in which the Diſeaſe was contracted; and remove from unhealthy Places where the Air is impure, vapid, deprived of its due Elaſticity, cloudy, or impregnated with noxious Exhalations, to healthier Situations and a purer Air. If his Circumſtances will permit, he ſhould travel Southward, eſpecially to *Italy* or *France*. If this cannot conveniently be done, he may burn Juniper Wood

in his Chimney, or throw Amber on live Coals. Let him alſo uſe Exerciſe, not indulge himſelf in much Sleep, be temperate in his Diet, and feed upon Aliment of eaſy Digeſtion.

Phyſicians refer the different Symptoms of this Diſeaſe to different Salts; but their different and far fetched Corrections of theſe Salts are plainly ridiculous. Water is the known Solvent of all Salts, and this Intention will be beſt anſwered by pure and light ſimple Water. I will venture to affirm, that the univerſal Remedy for a Scurvy conſiſts in mineral Waters; having, for more than thirty Years, preſcribed them for the Cure not only of the moſt obſtinate chronic Diſorders, eſpecially thoſe of the *Hypochondriac* and *Hyſteric Kind*, accompanied with a *ſcorbutic Impurity*, but alſo of a *confirmed Scurvy*. However, the Cure will be more certain, if an *accurate Regimen* be obſerved, and the Waters aſſiſted by the repeated Exhibitions of proper *antiſcorbutic* and *balſamic Medicines*. The *Bagnigge* Waters near *London* are excellent in ſcorbutic Caſes. When theſe cannot be had, good Spring-Water, wherein a red hot Iron has been extinguiſhed, may be ſubſtituted in their Room.

After Mineral Waters, nothing is more effectual in correcting a ſcorbutic Acrimony than a Milk Diet, or Whey alone, or impregnated with the Juices of antiſcorbutic Herbs, ſuch as *Scurvy Graſs* and *Water-Creſſes*.

Scurvy-Graſs, and all the Species of Garden and Water-Creſſes, Horſe-Radiſh, the Roots of wild Radiſh, and Muſtard, are juſtly looked upon as Antiſcorbutics, for they induce a ſurprizing Change both in the diſordered Fluids and Solids. To theſe may be added, the Roots of Gentian and Succory; the Leaves of Scordium, Carduus Benedictus, Wormwood, the leſſer Centaury, Water-Trefoil or Buck-Bean. Balſamics and Corroboratives, as Juniper-Berries, the Tops of Fir and Pine-Trees, *Winter's* Bark, *Cortex Eleutheriæ*, and Peruvian Bark; the Gums Ammoniac, Sagapenum, and Galbanum; and the Woods of Saſſafras, Guaiacum, and Aloes. Medicines which allay the Pains and Spaſms, are the Fat of Animals, Cream, Oil of ſweet Almonds, Spermaceti, Caſtor, Aſſa-Fœtida, Extract of Yarrow, and Chamomile, Diaſcordium, Saffron, Earth-Worms, Elks-Hoof, *&c.*

As to *Evacuations*, *Bleeding* ſhould be uſed with the greateſt Caution; and none but the *gentleſt Purges* ſhould be given, ſuch as Senna, Rhubarb, or Manna; alſo the Pills made after the Manner of *Becher*, with depurated Aloes, Extract of Rhubarb, bitter Herbs, and temperate Balſamic Ingredients. The *Diuretics* ſhould not be ſtronger than the Decoction of the Roots of Parſley, Celery, Fennel, and Aſparagus. The ſafeſt *Diaphoretics*

phoretics are dulcified Spirit of Nitre, Flowers of Sulphur, Æthiops Mineral, Infuſions, in the Manner of Tea, of Paul's Betony, Carduus Benedictus, Scordium, and Elder-Flowers: Diaphoretic Antimony, calcined and uncalcined Hartſhorn, Amber, Native Cinnabar, Cinnabar of Antimony, and compound Powder of Crabs Claws. *Theſe Things are adapted to a Cold Scurvy.*

In the *hot* or *alkaline Scurvy*, Scurvy-Graſs is too warm to be adminiſtred alone, and ſhould be corrected with Acids, ſuch as Wood-Sorrel, the Juices of Citrons, Oranges, Barberries, and Pomegranates. Or, mix the Conſerve of Scurvy-Graſs *with an equal Quantity of the* Conſerve of Wood-Sorrel, *and give it twice or thrice a Day, with ſome* antiſcorbutic Water. This ſhould be accompanied with Milk-Meats, Almond Emulſions, Barley-Broths, Water-Gruel, Chicken-Broths, with Endive, Lettuce, Sorrel, and Creſſes, interpoſing, at proper Intervals, *gentle Laxatives and Diuretics.*

When the Scurvy proceeds from muriatic Salts, which happens to thoſe who live on ſmoaked or high ſalted Fiſh or Fleſh, and have corroding Ulcers, a ſtinking Breath, putrid Gums, a thick and ſaltiſh Urine, as is generally obſerved in old Sailors, then Whey, long and copiouſly drank, produces happy Effects: As alſo Citrons, China Oranges, and ripe Fruits; whereas ſpirituous and volatile Antiſcorbutics are generally detrimental. *Hoffman.*

Willis, and, after him, *Allen*, reckons the *Strepitus Oſſium*, the Crackling of the Bones, or rather of the Joints, to be an incurable Symptom of this Diſeaſe; and the latter very judiciouſly gives this Reaſon for it; *that the* Epiphyſes *are parted and quite ſeparated from the Extremities of the Bones*, a Circumſtance that can only happen in the laſt Stage, and in the very worſt Kind of this Diſeaſe. A few Years ago I was afflicted with this Symptom myſelf, without any other Signof the Scurvy.

When I turned myſelf in Bed of a Morning, almoſt all my Joints, by Turns, made a very ſenſible Noiſe, which ceaſed upon Walking, or Exerciſe; I therefore concluded, that the *Synovia* of the Joints was in ſome Degree coagulated by a ſaline Quality of the Fluids; upon which, I immediately altered my Diet, and avoided ſalt Meat of all Kinds, which, with a ſuitable Regimen, ſoon contradicted this terrible Prognoſtic. I have known many other Perſons affected in the ſame Manner, to whom I gave the ſame Advice, and with the ſame Succeſs.

But if *cruſty black Ulcers require external Remedies*, we ſhould only uſe Preparations of the Yolk of an Egg, Myrrh, Olibanum, Saffron, Oil of Roſes, and *Peruvian* Balſam. When there is an exceſſive Impurity of the Humours tending to Putrefac-

tion, Scarifications will induce a Gangrene, which may be prevented by Lime-Water, exalted with camphorated Spirit of Wine and Sal Ammoniac.

We have an Inſtance of an Hypochondriac and Scorbutic Patient that was perfectly cured in three Days Time, by uſing, every Morning and Evening, a Bath of ſweet Waters, prepared with emollient Herbs. There is nothing better to diſcuſs hard and painful Tumours of the Legs and Feet than Baths, with Brook-Lime, Water-Creſſes, and Scurvy-Graſs, as alſo of the Tops of Fir and Pine-Trees, frequently uſed. But Baths ought never to be uſed when there is a putrid Corruption in the external Parts. *Hoffman.*

But Fomentations and Cataplaſms of the *common Hemlock*, frequently repeated and duly continued, are found more effectual than all other Remedies.

After what has been ſaid is well weighed, the Practitioner will be better able to make a good Uſe of *Sydenham*'s Method, which is as follows:

Take away eight Ounces of Blood, unleſs there are Signs of a Dropſy; the next Morning exhibit the common purging Potion, which muſt be twice repeated every third Day.

On the Days when purging is omitted, and for a Month or two afterwards, preſcribe the following things:

2. ℞. *Conſerv. Coch. Hortenſ.* ℥ij. *Conſerv. Lujul.* ℥j. *Pulv. Ari Comp.* ʒvi. *cum q. ſ. Syr. Limon. F. Electuarium, de quo cap. ad Magnitud. Nuc. Moſchat. maj. mane, quintâ pomeridianâ & nocte, ſuperbibendo Aq. Raphan. compoſ. Coch.* vi. *Vel ſequentis:*

3. ℞. *Rad. Raphan. Ruſtican. raſpat.* ℔ij. *Rad. Ari* ℔j. *Fol. Coch. Hortenſ. M.* xij. *Fol. Menth. Salv. Naſturt. aquat. & Becabung. an. M.* vj. *Sem. Coch. Hortenſ. parum. contuſ.* ℔ſs. *Nuc. Moſchat.* ℥ſs. *Vin. Alb.* ℔xij. *Diſtillentur Organis communibus & eliciantur ſolummodo* ℔vj. *pro Uſu.*

Or the Leaves of Garden Scurvy-Graſs muſt be diſtilled alone for the aforeſaid Uſe.

The following Diet-drink muſt be for common Uſe:

4. ℞. *Rad. Raphan. Ruſtican. recenſis inciſi* ʒij. *Fol. Coch. hortenſ.* No. xij. *Paſſular. enucleat.* No. vj. *Aurant. cum toto inciſi dimidium in Lagenam Vitream* ℔ij. *Cereviſiæ tenuis capacem, ſubere mox probe obturandum immittantur.*

Let there be ſix Bottles made for Uſe at a time; and after a few Days ſix more, that they may be ready before the former are all drank; let the ſame Method be continued.

Or,

Or, instead of this Drink, three or four Spoonfuls of the following Mixture may be added to every Draught of the Patient's Drink:

5. ℞. *Rad. Raphan. Rustican. & Sem. Coch. hortens. an.* ℥ ss. *Cochl. hortens. M.* ij. *Pulpam unius Aurant. Contundantur in Mortar. Marmor. simul, sensim affundendo Vin. alb.* ℔ ss. *coletur cum levi Expressione & reponatur pro Usu.* SYD.

For the removing the *Disorders of the Mouth*, we must use antiphlogistic, antiscorbutic Medicines, appropriated to the various Species of Scurvies.

In hot Scurvies of the Gums, the following Gargarisms may be used:

6. ℞. *Succ. Limon. recent. Mell. rosac. an.* ℥ ij. *Spir. Sal. dulc.* ℥ ss. *Aq. stillat. Rutæ* ℥ iij. *M. F. Gargarisma.* Or,

7. ℞. *Sp. Sal. Marin.* ℥ ij. *Aq. stillat. Salv.* ℥ viij. *M. F. Gargarisma.* Or,

8. ℞. *Succ. Linion. recent.* ℥ j. *Spir. Sal. Ammoniac.* ℥ j. *Aq. stillat. Rut.* ℥ vj. *M. F. Gargarisma.*

In cold Scurvies:

9. ℞. *Spir. Vin. camphorat.* ℥ ss. *Tinct. Myrrh.* ℥ j. *Rob. Juniperin.* ℥ ss. *Aquæ stillat. Absynth.* ℥ iv. *Sal. Gem.* ℥ j. *M. F. Collutorium Oris.* BOER.

The Gums may be rubbed Morning and Evening with the Tincture of *Gum Lac*; or with *Honey of Roses* acidulated with Spirit of Salt, or the Juice of Lemons. Or the Patient may chew *Myrrh*, and hold it in his Mouth for some Time; or if the Teeth are rubbed with it, it will be very useful. Or an *Electuary* may be made of Myrrh, Dragon's Blood, Bistort Root, Nutmegs, and a little Alum, either crude or burnt, with a sufficient Quantity of Honey of Roses; and let the Gums be thoroughly cleansed with some of it. Likewise the Infusion of Sage in red Wine is no despicable thing for this Purpose. *Heister.*

Some Years since it was proposed by Dr. *Macbride* to try *fresh Wort*, or *Infusion of Malt*, as a Substitute for the Juices of Vegetables in the Cure of the *Scurvy at Sea*: For as *Wort* is a Liquor perfectly similar, in all its Qualities, to the recent Juices of such sweet Vegetables as are known, from repeated Experience, most certainly to cure the Scurvy, he naturally inferred, that if taken, like them, in a Quantity sufficient, it would, in all Probability, produce the same salutary Effects. Moreover, as Malt, if well dried, and carefully kept in a proper Part of a

Ship, it may be preſerved ſound for a great Length of Time. He was for having it carried to Sea, in order to be brewed into *Wort* as often as it might chance to be wanted, and thus prove a Remedy always in Readineſs againſt a moſt fatal Diſeaſe.

In *October* 1765, the *Jaſon* Man of War being ordered to *South America*, returned to *England* in *March* 1767, and the Captain reported, that upon Trial, the *Malt-Wort* had ſucceeded beyond Expectation; the Surgeon, too, gave a particular Detail of the ſeveral Scorbutic Caſes wherein the *Wort* had been ſucceſsfully exhibited, together with the Quantities.

Alſo a Letter from the Surgeon of the *Nottingham Eaſt Indiaman*, dated *October* 16, 1766, to Dr. *Hunter*, contains ſix Caſes, with the Particulars of each noted down upon the Spot, wherein he gave the *Wort*, tending to prove its great Utility in the *Cure of the Scurvy at Sea*.

Whatever Alteration was made in the Habit of theſe Scorbutics, was entirely owing to the *Wort*, and the Panada made of it; for, on Account of the Soreneſs of the Mouth, they could not eat any thing ſolid.

From theſe Trials it appears very probable, that the Uſe of *Wort* will, in three or four Days, *abate the ſcorbutic Pains, excite a Looſeneſs, and diſperſe the Eruptions:* That in ten Days or ſo, the *Wort*, in moſt Caſes, if taken in time, and to a ſufficient Quantity, will *recover the ſcorbutic Patient* ſo far, as to be able to go upon Deck fit for moderate Duty: That, if continued in ſmaller Quantity, after Recovery from the Diſeaſe, it will *prevent their relapſing* for Months without any other Remedy, which nothing that has yet been carried to Sea has ever done: That is, aided by Portable Soup, Rue, *Bowen's* Patent Sago, freſh Meat Broths, and the like, there will be little Danger of this Diſeaſe, even in the longeſt Cruizes.

The *Malt* ſhould be ground daily in a Hand-Mill. *Three* Meaſures of boiling Water poured on *one* of the ground Malt, put into a large Copper Decoction-pot, and there left to ſtand for four Hours, when being ſtrained off through a Cloth, each of the Patients to be ſerved with their Allowance of it.

When the Sick become numerous, the Water to maſh the ground Malt may be boiled after Dinner in the Ship's Copper, and a ſmall wooden Vat may be placed in the Galley for the Purpoſe of Brewing; the Infuſion may be ſtrained through a Hair-Cloth, and received into a clean wooden Veſſel, where it will keep ſweet for above thirty Hours.

Whether Malt will keep during the Time of a whole *Eaſt India* Voyage, has been queried.—The Malt carried out in the *Jaſon* was perfectly ſound after an Abſence of eighteen Months.

All

All the Precaution that ſeems neceſſary with reſpect to the Adminiſtration of *Wort*, is to begin with a ſmall Quantity, and increaſe gradually, as it is found to agree. When the *Wort purges too much*, abſtain, or leſſen the Doſe; or add as much of the *Elixir of Vitriol* as will make the Drink gratefully ſour: If it *gripes* ſo much as to create Diſtreſs, give from fifteen to twenty Drops of Liquid Laudanum, in two Spoonfuls of *Cinnamon Water*, at Bed-time.

Of Preſerving *the* HEALTH *of* SEAMEN.

IN *Northern* Climates, though the Cold is intenſe, yet if the Air is pure and dry, and the Men are well cloathed, there are few Diſeaſes produced. But when the Weather is unſettled, cloudy, wet, and rainy, the uſual Conſequences are Colds, attended with feveriſh inflammatory Symptoms, and eſpecially rheumatic, pleuretic, and peripneumonic Complaints. Theſe laſt require plentiful Evacuations, but chiefly Blood-letting, which, when timely and freely uſed, will prevent Conſumptions and chronic Rheumatiſms.

When the Men are almoſt conſtantly wet and chill from bad Weather, and undergo an uncommon Degree of Fatigue, it will be proper to let them have the following Mixture, *viz.* A Pint of Small Beer and a Quartern of Brandy ſweetened with Moloſſes, to which may be added as much Vinegar as will render the Mixture palatable; or, inſtead of the laſt, Cream of Tartar. This the *Ruſſians* call *Aſhbetten*. Dry Beds and Cloathing are moſt neceſſary Articles; for it is obſervable, that the moſt naked ragged Fellows are principally attacked with Winter Diſeaſes. The Scurvy is a Diſeaſe common in the Winter and Spring.

While the Ships are in the Channel, one of the Preſs-tenders may be ordered out, once a Fortnight, from *Plymouth*, to repair to the Rendezvous or Station of the Squadron, with live Cattle and Greens, to be given to the Men inſtead of Salt Meats; and the Men on Board the Tender ſhould have the Privilege of carrying, on their own Account, all Manner of Roots, Fruits, and Vegetables, and be allowed to ſell them in the Fleet; Onions, Leeks, Shallots, Turnips, Cabbage, Carrots, Apples, ſoft freſh Bread, Cyder, Lemons, Oranges, and even the moſt common Herbs proper for the Seaſon; ſuch as Dandelion, Water Creſſes, Brook-lime, and the like ſove-

reign Antiſcorbutics, which would be a high Refreſhment for the Sailors. The Sutlers ſhould always be obliged to bring Rob of Lemons, [*See p.* 332, *& ſeq.*] Juice of Oranges, and the Juice of common antiſcorbutic Herbs, which, being mixt with a ſixth Part of Brandy, will remain good for many Months. If a Regulation of this Sort was properly eſtabliſhed, ſome Thouſands of Lives might not only be preſerved, but Ships would be enabled to keep the Seas much longer.

The moſt proper cordial Dram a Sailor can uſe in the Winter, is Garlic Brandy; for a ſmall Quantity of it not only warms the Stomach, but keeps the Breaſt, Kidneys, and Skin free from Obſtructions. But this nor no other Dram ſhould be given to a Man almoſt chilled to Death with Cold, for in this Caſe it hath often proved fatal; but he ſhould be immediately put into a warm Bed, and have ſome warm Gruel or Sage-Tea, and then a Dram may be allowed. In cold rainy Weather, Tea made with Sage, Saſſafras, or a few roaſted Juniper Berries, with the Addition of a little Garlic-Brandy, will be very beneficial. Likewiſe a Man will never be ſo liable to catch Cold when he is wet upon the Deck, and uſes Exerciſe, as when he is below in his wet Cloaths, or ſleeps in them, or in a damp Bed. When he goes upon Deck he ſhould eat a Bit of Biſcuit and drink a little *Aſhbetten*, and then the Weather will probably have but little Power to alter his Health for the worſe.

New Ships often produce ill conditioned irregular Fevers, attended with a Diarrhœa and anomalous Symptoms, occaſioned by the Sweating of the Wood or Timbers in cold Countries; to remedy this, the Veſſel ſhould be often fumigated with the Steam of Tar or Pitch. Another Thing hurtful to the Health of Sailors, is waſhing the Deck after Sunſet.

The free Uſe of ſalted Beef and Pork in ſouthern Climates, is productive of ſcorbutic and many other Diſeaſes, and therefore a ſhort Allowance in theſe Articles will be very proper. Thus the *Sheerneſs*, bound to the *Eaſt-Indies*, at the Crew's own Requeſt, had Beef only once one Week, and Pork another; in Conſequence of which the Ship arrived at the Cape of *Good Hope* without one Man ſick on Board. The *Sheerneſs* remained in *India* ſome Months, where none of the Men, except the Boats Crew, were allowed to go on Shore, notwithſtanding which all the Sailors enjoyed a moſt perfect State of Health. They were indeed ſupplied with freſh Meat while they were there. In their Return to the *Cape* they were only ten Weeks, and yet, by eating their full Allowance of ſalt Proviſions, twenty of them were in a moſt miſerable Condition,

with

with Scorbutic and other Diſorders. It is likewiſe obſervable, that they had the Uſe of *Sutton's* Air-pipes on their Return, which were caſually ſtopped in their Paſſage to the *Indies*. However, they were recovered on Shore, and then agreed to obſerve their former Method, by which Means the Ship returned with the full Complement of 160 Men, and with unbroken Conſtitutions. They buried but one Man, and he died of a Salivation for the Pox.

As a Help in theſe long Voyages, there might be portable Soups made with the Shins, Necks, Hearts, and other Offal of the Cattle, as alſo with Mutton for Variety and for the Delicate. It would be likewiſe a great Advantage if new Bread could be baked every Day on Board the Ships. Wine is the beſt of all Cordials in the Decline of Fevers, and is a much better Reſtorative than Rum, however mixed or prepared. It is likewiſe an excellent Means to prevent Infection. Some Caſks of *Madeira* Wine ſhould be preſerved for the Uſe of the Sick in theſe Voyages. The ſwallowing large Draughts of undiluted Spirits, has always the moſt fatal Conſequences in every Climate; but when they are converted into Punch they become very ſalutary Liquors, preventing Diſeaſes which ariſe from hot and moiſt Weather, and the Tendency to Corruption in the animal Fluids, which is conſtantly induced thereby. Likewiſe it would be of great Advantage, if the Rob of Lemons could be made cheap by the *Weſt-Indians*; for, as *Bonitus* obſerves, Lemons are of great Uſe againſt malignant Fevers, peſtilential Fevers, *&c.* and better than any ſimple Remedy. Therefore a large Quantity of Syrup of Lemons ſhould always be put in the Surgeon's Cheſt, as well as Orange Juice in Bottles, with a little Sallad Oil poured in the Neck. Leeks and Coleworts cleaned and put into a wooden Veſſel, with Bay-Salt between each Layer, and then preſſed down with a Weight, will keep a long while.

Cream of Tartar being the eſſential vegetable Salt of Wine, is a very proper Succedaneum for the Acid of Punch, when Fruit is wanting; and Orange or Lemon Peel would greatly improve the Flavour. Beſides, Cream of Tartar is the moſt grateful of all Acids ſubſtituted in the Room of the Juice of Lemons and Oranges, and beſt adapted to the Conſtitution of Mariners, as well as the cheapeſt; for an Allowance of the eighth Part of an Ounce will not coſt the Government one Shilling yearly for each Man in the *Weſt-Indies*. Two Pounds and a half of Cream will be ſufficient to acidulate an Hogſhead of Water. This, with Rum and Sugar, will become a ſalutary Compoſition, of a cooling, ſtrengthening, antiputrid, and

diuretic

diuretic Nature; for there is nothing more repreſſes the inflammatory and intoxicating Power of Spirits than Acids.

When a Sailor happens to be dead drunk, his Head ſhould be raiſed, and a Spunge dipped in Vinegar ſhould be held to his Noſe, and if he can drink, he ſhould have warm Water mixed with Vinegar; Bleeding will likewiſe be proper, and a gentle Emetic which operates ſpeedily. Likewiſe dipping the Feet in cold Water will take off the Preſſure from above, and ſolutive Clyſters will abate the Diſtenſion. It is but too well known how many People loſe their Lives by exceſſive Drinking and ſpirituous Liquors. The ſame Treatment will be uſeful after a large Doſe of Opium. The Uſe of Dr. *Hale*'s Ventilators is now univerſally known, and their happy Effects in cleanſing the Ship from foul Air.

The Uſe of cold Bathing-Tubs under the Forecaſtle, and Bathing in the Sea early in the Morning, have been found extremely beneficial in hot Countries; for this Practice not only braces up the Fibres and contributes to Health, but Cleanlineſs likewiſe, and promotes Diſcharges by the Skin. Diarrhœas and other Complaints, the Effects of great Heat, have been cured by Bathing, and their Returns prevented. One Ship was remarkably healthy in a Voyage to the *Eaſt-Indies*, from the Uſe ofCold-bathing, when her Conſort, at the End of the Run, had two hundred Men ſick on Board. But Sailors ſhould not ſtay too long in the Water, nor go in when over-heated with Work or Liquor, nor when the Stomach is full, nor when there is an Eruption with a prickly Heat on the Skin.

Diſeaſes, in a Voyage to the Southward, are generally of an inflammatory Nature, and therefore it hath been cuſtomary with ſome to bleed the Ship's Company when they firſt arrive in a hot Climate; but this Practice is liable to many Objections; and beſides, it is no Security againſt the Diſeaſes of an intemperate Climate. The moſt dangerous Diſeaſes proceed from a Continuance of hot, moiſt, cloſe Weather, or from heavy Rains, common at ſome Seaſons of the Year between the Tropics. At firſt, a few of the Sailors are ſeized with the Bloody-Flux, which is ſucceeded by a malignant Fever of the remitting or intermitting Kind; but moſt commonly it is like a double Tertian. This is epidemic between the Tropics, and is the autumnal Fever of all hot Countries. The Safety of the Patient entirely depends on the Fever's intermitting: Or, at leaſt, on its remitting ſo much as to allow an Opportunity of throwing in the Bark. Half an Ounce or an Ounce of the Jeſuits Bark is the only ſovereign Medi-

cine

cine in this Sort of malignant Fevers, though they put on different Appearances. Even in the Fever of the Iſland of *St. Thomas*, which is deemed to be of the moſt malignant and fatal Species, the Bark is the only Remedy; likewiſe the continual Uſe of it is an effectual Preſervative againſt a Relapſe, as well as againſt an Attack of this Fever, and other malignant Diſorders, uſual in unwholſome Climates, during a corrupt and pernicious Diſpoſition of the Air. The Factories on the Coaſt of *Guinea* have tried this Remedy with Succeſs, by way of Prevention, during the rainy and ſickly Seaſon.

The Diſeaſes of *Hungary* are analogous to thoſe on the Coaſt of *Guinea*, and in the autumnal Seaſon are altogether as bad; and yet, when there was ſcarce an Imperial Officer that eſcaped theſe malignant Sickneſſes, Count *Bonneval* and his numerous Attendants continued in perfect Health, by taking, two or three Times a Day, a ſmall Quantity of Brandy in which the Bark was infuſed, and he obliged all his Domeſtics and Attendants to do the like. By this Regimen he enjoyed, in this ſickly Country, perfect Health to a great old Age. This Account is given by Dr. *Kramer*, who alſo affirms, that a whole Regiment in *Italy* was preſerved from the like Diſtempers by the Uſe of the Bark, while the reſt of the *Auſtrian* Army were greatly annoyed with them. The Bark might be made extremely palatable, by infuſing it in Spirits with Orange-peel; and the bilious Fever and the Bloody-Flux might be prevented. Four Ounces of Bark and two Ounces of dried Orange-peel, will be ſufficient for a Gallon of Spirits, and two Ounces may be allowed each Man a Day, when there is an Apprehenſion of theſe malignant Diſeaſes. It will be beſt to take half in the Morning on an empty Stomach, and the other half when they are called out to their Night Watch. The Bark is an excellent Medicine for Sailors on many Accounts, it being the greateſt Antiſeptic taken inwardly of any yet diſcovered.

It may in general be remarked, that in ſultry Climates, or during hot Weather, in all Places ſubject to great Rains, where the Country is over-run with Thickets, Shrubs, or Woods, eſpecially if there are Marſhes or ſtagnating Waters in the Neighbourhood, the malignant Diſeaſes abovementioned may juſtly be dreaded. The Fens and Marſhes in *England* are bad for Strangers, but the woody and marſhy Lands in hot Countries are exceedingly more pernicious to the Health of *Europeans*. In ſuch Places it will be beſt for Ships to anchor as far as they can from the Shore, and never to run into Rivers and Bays within Land, eſpecially where high Mountains

intercept

intercept the Sea-Breezes. It is beſt to keep out of the Reach of the Land-Breezes, or at leaſt at ſuch a Diſtance that their Malignity may be ſmall. The ſame Precautions ſhould be taken in Places, either during, or ſoon after, the rainy Seaſon. We know by Experience, that Ships lying in a Harbour have ſuffered greatly, while Cruizers in the open Sea have enjoyed perfect Health.

But when this Situation of a Ship or Ships cannot well be avoided, the Crew ſhould be as little upon Deck as poſſible before Sunriſe and after Sunſet, becauſe there is commonly a Land-Wind in the Night, and becauſe the noxious Vapours are in ſome meaſure rarified and diſperſed when the Sun is above the Horizon. Beſides, the Night Air at Land is always very moiſt in Southern Climates, occaſioned by exceſſive Dews; and theſe Dews are found to be extremely pernicious to ſuch Perſons as are expoſed to them.

When a Ship rides at Anchor near marſhy Ground or Swamps, and the Wind blows directly from thence in hot Weather, the Gun Ports ought to be kept ſhut; or if ſhe rides with her Head to the Wind, a thick Sail ought to be put upon the Fore-maſt, along which the Smoke of the Galley ſhould be made to aſcend. At ſuch Seaſons the Men ſhould be enjoined to ſmoke Tobacco, and the Carpenter ſhould fumigate the Ship with the Steams of Pitch or Tar. Boats Crews and Men employed on Shore, being moſt expoſed to the open Air, ſhould be often relieved, and never ſuffered to ſleep on Shore, in Tents or otherwiſe. But when Men are obliged to remain on Shore, their Tents ſhould be cloſe, and erected on the dryeſt Spot they can find, that is, upon dry Sand, Gravel, or Chalk near the Sea-ſhore, and they ſhould not ſleep on the Ground, but in Hammocks. The Door of the Tent ſhould be towards the Sea, and the back Part ſecured by double Canvas. All old forſaken Houſes, Caves, and ſuch like Places, ſhould be well purified with large Fires, and the Men ſhould be well covered while they ſleep; and in the Morning and Evening they ſhould take a Dram of the Infuſion of the Bark. Likewiſe the Officers and Sailors, when on Shore, ſhould be allowed a more plentiful, but not immoderate, Uſe of vinous Liquors.

If, on the Coaſt of *Guinea*, and on all Places in the *Eaſt* and *Weſt-Indies*, where the *Engliſh* Factories are near the Sea, there was another Ship (beſides that appropriated for the Gentlemen of the Factory) lying at a proper Diſtance from the Land, during the ſickly Seaſon, to receive *Europeans* immediately upon being taken ill, it would be a certain Means of

ſaving

ſaving many Lives. This Ship might be conſidered as an Hoſpital for the Fort or Factory.

The Name of Hoſpital, or Hoſpital Ship, may convey a frightful Idea of Sickneſs and Mortality to ſome People, but without any Reaſon, as this Veſſel ought to be kept perfectly clean, and ſhould never be crouded.

Beſides, on board of her, the Sick will be well accommodated, and will always breathe the pureſt Air.

In *Europe* all Nations have Hoſpitals, and many of them have found it abſolutely neceſſary to erect Hoſpitals, or Infirmaries for the Sick, in their Settlements and Factories Abroad. The Difficulty is, to find a convenient and healthy Spot. The Manner of obviating this we point out; and if, by Way of Example, a Ship or Hulk was moored at the Mouth of the River *Senegal*, and properly fitted for the Reception of the Sick in that Garriſon and Factory, it would be a Means of ſaving a great Number of Lives during the Rainy Seaſons.

Transferring the Sick, and their Hoſpital, from the Land to the Water, would put an End to that dreadful Mortality amongſt our Troops in that Part of the World. This Method is therefore more particularly recommended, on Account of the Soldiers ſtationed at *Senegal*, and will be attended with many Advantages to them.

In the firſt Place, on board a Ship, with proper Care, a greater Degree of Neatneſs and Cleanlineſs may be procured for the Sick, by Means of Funnels pointing to the Sea, and Waſh-cocks to cleanſe them occaſionally, than in moſt Infirmaries on Land.

2dly, They may there be ſupplied with the moſt wholeſome * freſh Water, from the Element which ſurrounds them, by a ſimple Diſtillation; a Diſcovery made in the Year 1761: If more be wanted for the moſt common Uſes, Sails or Awnings, properly extended, will procure them a ſufficient Quantity of Rain Water.

Here it may not be improper to take Notice of a common Opinion which prevails with many in thoſe Parts abroad, that ſuch as have been thoroughly wet with Rain, or other freſh Water, will from thence ſuffer no Indiſpoſition, provided that before putting on dry Cloaths they dip themſelves in the Salt Water, or wet their Skin all over with a Spunge dipped in it.

3dly, Having already † pointed out the Methods of rendering the Air in a Ship at all Times wholeſome, by Means of

* See Eſſay on Preſerving Seamen, 2d Edit. pag. 85, 86, &c. where it was firſt publiſhed.

† Ibidem, pag. 7th, 105, &c.

purify-

purifying Fumes, and Fires, we ſhall only add on this Head, that when the Ventilation, or Change of Air, becomes neceſſary, it may be more effectually accompliſhed by opening ſome Port-Holes in a Ship, than in moſt of the Chambers on Land. A Ventilator may likewiſe be provided, for the more effectual drying of the Timber, and of the lower Apartments of the Ship: It may be worked by a Wind-Mill Fly. It is here neceſſary to obſerve, that all theſe Ventilators ſhould be made Uſe of only in dry Weather; and for the further Preſervation of the Ship, the Bottom ſhould be ſheathed with Copper.

4thly. Beſides the great Benefits of neat and clean Accommodations, of good Water, and of a pure Air, it is in the Watery Element alone that the moſt wholeſome Nouriſhment, and the moſt proper Food for the perfect Re-eſtabliſhment of Health, is to be found; I mean, a great Plenty and Variety of Fiſh. When the Sick in thoſe Countries can be ſupplied with Green Turtle, they recover very quickly, not only from the Scurvy, but from other Diſeaſes proceeding from a Relaxed Habit of Body, and a watery State of the Blood. It has been often remarked, that Fluxes, Dropſies, and an infirm Conſtitution of Body, which are the frequent Conſequences of acute Diſeaſes in thoſe Climates, proceed, in a great Meaſure, from the low poor Diet of the Country, conſiſting chiefly of boiled Rice, lean Goats, Fowls, and Food of that Kind; which render the Recovery of *Europeans* extremely ſlow and tedious.

In thoſe Climates Fiſh caught at Sea are with Difficulty procured for ſick or weak People, as they cannot be preſerved freſh many Hours, and are often tainted before they can be brought on Shore. They are ſo apt to corrupt, even during the Coolneſs of the Night Air, that it is a prevalent Opinion among the Fiſhermen there, that the Moonlight in particular has a quick and powerful Influence in ſpoiling their Fiſh.

But by a peculiar Bleſſing of Providence, not only the River *Senegal*, but all the great Rivers whoſe Sources are within the Tropics, have depoſited, by their annual Inundations, great Quantities of Slime and Mud at their Openings into the Sea, which form what are called the Bars to thoſe Rivers. Thoſe Bars, or Shoals, conſiſting of a fine ſoft Ooze, often extend themſelves many Miles from the Land, and afford not only a ſafe Anchorage for both the floating Factories and Infirmary Ships, but they abound alſo with an incredible Quantity of excellent Fiſh; and one Man in the Infirmary Ship lying off *Senegal*, or in moſt other Places on the Coaſt of *Guinea*, will be

be able to catch as many Fiſh of different Sorts in two Hours, as will be ſufficient for the Nouriſhment of a hundred ſick People. It has been found by Experience, that no Food whatever contributes more to the perfect Recovery of Health and Strength, and to the Prevention of the fatal Conſequences of Fevers in hot Climates, than Fiſh, or rich nouriſhing Fiſh-Soup, warmed with the Spices of the Country, and, if neceſſary, rendered palatable by the Addition of Lime Juice.

Upon the whole, the immediate Removal of the Patient from a bad Air, as ſoon as he is perceived to be affected by it, into the Infirmary Ship, will, in all probability, render his Diſeaſe mild, and eaſily curable, and his Recovery ſpeedy and perfect. The Conſtitution thus preſerved, will at length become ſo ſeaſoned and habituated to the Climate in a Courſe of Time, that it will be rendered much leſs ſuſceptible of any injurious Impreſſions either of the Air or Soil. One Merchant, Factor, or Soldier, thus conſtitutionally naturalized to the Country, becomes more uſeful, and his Services may be more depended upon there, than ten newly arrived unſeaſoned *Europeans*.

It has been a received Opinion, that the firſt Fever or Fit of Sickneſs alters the Conſtitution of the Body, ſo as to ſeaſon it to a new Climate: But I am of Opinion, that the ſudden Changes of Climates are greatly the Cauſes of Sickneſs, and that a ſeaſoned Conſtitution in any Part of the World is chiefly to be acquired by remaining there for ſome Length of Time.

From the very numerous Opportunities I have had of knowing the general State of Health enjoyed by the Seamen on board his Majeſty's Ships in Foreign Voyages, it appears, that ſudden Changes from Heat to Cold, or from Cold to Heat, produce almoſt ſimilar Effects.

Thus, if four or five hundred Seamen and Soldiers ſail from *England* to the *Weſt-Indies*, and make a ſudden Tranſition from a cold Climate to a very great Degree of Heat, many of them will be ſeized with a Diarrhœa; and ſuch of them as drink immoderately of Rum newly diſtilled, on their firſt Arrival at *Jamaica*, will probably die of violent Fevers: But if the Men are kept on board Ship, and much at Sea; if the Ship, eſpecially during the ſickly Seaſon, does not put into any very unhealthy Port, after being twelve Months in the *Weſt-Indies*, they will become perfectly ſeaſoned to that Climate, and enjoy as good a State of Health as if they were in *England*.

In like manner, if the ſtationed Ships, which are generally relieved at the Expiration of three Years, arrive upon the Coaſt of *England* in the Winter, and are long detained at Sea by contrary

trary Winds, in a very cold Season, the Men, having been inured to a hot Climate, will be again attacked with Diarrhœas; the Cure or Removal of which will entirely depend on keeping the Patients warm. Lind.

Of the Dropsy.

Dropsies are of various Kinds, but those usually treated of by Authors are the *Anasarca*, *Ascites*, and *Tympanites*.

When the *Lympha* stagnates throughout the whole Habit of the subcutaneous Fat, or is shed therein, it produces an *Anasarca*, which extends itself also to the *Abdomen* and *Scrotum*.

When the Water is collected in the Duplicature of the *Peritonæum*, in the Cavity of the *Abdomen*, between the *Peritonæum* and the *Viscera* of the *Abdomen*, or in the dilated Cavities of the Glands and Vessels contained in the *Abdomen*, it is called an *Ascites*. If the Dropsy is owing to the Rarefaction of some Steam or Vapour, arising from Water, *Pus*, *Ichor*, or Air, pent up and heated till they putrify, then it is a *Tympany*.

The Causes of these Diseases may be, a Family Disposition thereto; a hasty drinking too great a Quantity of cold Water, and its not being evacuated upwards or downwards, or by Sweat or Urine excited by Heat or Motion; acute Diseases, especially the most ardent, attended with unquenchable Thirst, or otherwise. A lienterious Dysentery of a long Continuance, all obstinate Obstructions of the *Viscera*, and a *Schirrus* of the Liver, Spleen, Pancreas, Mesentery, Kidneys, Womb, or Intestines; the Jaundice; a violent Quartan Ague of long Duration; a Lientery; a Diarrhœa; a long Dysentery; the Cœliac Passion; an Empyema; a Consumption; the Gout; too great Evacuations, chiefly the Blood; the drinking of sharp, fermented, and Spirituous Liquors; the feeding on tenacious and hard Aliment; very large and numerous *Hydatides* hanging in the Cavity of the Abdomen; Melancholy; the Scurvy, and the like. Boerh.

The *first Sign of the Approach of this Disease*, is the Swelling of the Feet and Ancles, which in the Evening will pit, if pressed with the Fingers; which Swelling disappears in the Morning, especially if there begins to be a Difficulty of Breathing. And yet it must be remembered, that pregnant Women, or whose Menses are stopped, as also when suddenly freed

freed from an inveterate Aſthma, are affected with the like Swelling. When the Feet and Legs are diſtended to the utmoſt, the Waters ruſh into the Abdomen, and cauſe it to ſwell by little and little, till at length the more noble Viſcera are affected therewith, and the Patient is ſoon overwhelmed with the Deluge. In Proportion as the diſeaſed Parts increaſe in Bulk, the reſt fall away: At the ſame Time the *Difficulty of Breathing*, *Paucity of Urine*, and *intenſe Thirſt*, the three principal Symptoms, grow more intolerable. *Sydenham.*

When the Abdomen is ſwelled, it will ſound, when ſtruck, if the Diſeaſe is a *Tympany*. In the *Aſcites* there is a Noiſe of the fluctuating Water upon bodily Motion, unleſs the Waters are incloſed in a Cyſtis or Bag.

Beſides the above-mentioned Symptoms, there is a Heavineſs, a Torpor, a coſtive Body, and at length a ſlow Fever; the Patient never ſweats. In proceſs of Time, the ſtagnating Waters, being pent up in a hot Place, become acrimonious; hence Ulcers, Gangrenes, Bleeding at the Noſe, a Protuberance of the Navel, a Mortification of the Viſcera, and Death. *Boerh.*

The *Curative Indications* in an *Anaſarca*, as well as in an *Aſcites*, are to reſtore the Humours to their natural Fluidity; to invigorate the languid Circulation; to brace up and ſtrengthen the relaxed Solids; to promote the Secretions; and to carry off the redundant ſtagnating Juices.

Strong draſtic Purges, Steel Medicines, Abſorbents, Detergents, and Stomachics, are beſt ſuited to anſwer theſe Intentions.

The firſt thing to be done *is to evacuate the ſerous Humours by Cathartics.*

1. ℞. *Cremor. Tart* ℥ſs. *Mechoacan. Jalap. an.* ʒiij. *Sem. Ebul.* ℥ſs. *Gut. Gamb.* ℈iv. *Nuc. Moſc.* ʒj. *M. F. Pulvis Doſ.* ℈ij. *vel* ʒj. *ex Vin. alb. hauriendus.* Or,

2. ℞. *Syr. è Spin. Cervin.* ℥j. *Rhei Optim.* ʒſs. *Aq. Raphan. comp.* ℥j. *M. F. Hauſtus.* TOWNE. Or,

3. ℞. *Vin. alb.* ℥iv. *Jalap. ſubtiliſſ. pulv.* ʒj. *Zinzib. pulv.* ℈ſs. *Syr. è Spin. Cervin.* ℥j. *M. F. Potio.*

This is to be taken early in the Morning, every Day, or every other Day, according to the Strength of the Patient, till the Swelling of the Part affected abates; or,

4. ℞. *Tamarind.* ℥ſs. *Fol. Sen.* ʒij. *Rhei.* ℥ſs. *coq. in q. ſ. Aq. ad* ℥iij. *in Colatur. diſſolv. Mann. & Syr. Roſar. ſolut. an.* ℥j. *Syr. è Spin. Cerv.* ℥ſs. *Pulv. è Scammon. gr.* vi. *M. F. Potio ſumenda ut ſupra.* Or,

5. ℞. *Pil. ex. Colocynth. cum Aloe*, ℈j. *Elater. gr.* iij. *Ol. Chem. Caryophil. gut.* ij. *F. Pil.* N°. iij. *cap. summo mane; repetanturque ut Opus fuerit.* Or,

6. ℞. *Cortic. interior. Sambuc. è ligno deraſi M.* iij. *coq. in Aq. & Lact. partibus æqual. miſtorum* ℔ ij. *ad* ℔ j.

Let the Patient take one Half in the Morning, and the other in the Evening, till he recovers. But it muſt be obſerved, that unleſs the Patient is eaſily purged, this Decoction will be of no Uſe.

There are two things which I look upon to be of uncommon Efficacy in the *Dropſy*; theſe are, *Elaterium* and *Antimonial Wine*, eſpecially for thoſe which are not eaſily purged; two Grains of the former is a proper Doſe for moſt Conſtitutions; I generally give it, as in the above *Formula*, in Pills.

As for the *Antimonial Wine*, ℥ jſs. or ℥ ij. as the Patient's Strength will admit, given in the Morning, will, in due Time, free the Abdomen from the Load of Water. If it does not purge downwards as well as upwards, I mix it with Syrup of Buckthorn after the third or fourth Doſe. *Sydenham.*

Some greatly recommend *Bontius*'s Pills for the Dropſy, the Doſe of which is from Half a Scruple to a Scruple; but *Heiſter* preſcribes them from Half a Dram to a Dram.

7. ℞. *Aloes opt.* ℥ ijſs. *Gutt. Gamb.* ʒ iſs. *Diagrid.* ʒj. *Gum. Ammoniac.* ʒ iſs. *Tartar. Vitriolat.* ʒ ſs. *Syr. Roſar. Solut. q. ſ. M. F. Maſſa Pil.*

Mayerne affirms, that *Mercurius dulcis*, without doing any Miſchief to the Body, acts directly upon the morbific Cauſe, and if poſſible deſtroys it. If a Salivation follows it is not dangerous, but may be prevented if the *Mercurial* be joined to an *active Cathartic.*

Many praiſe the Juice of the Root of *Iris paluſtris lutea*, and we have an Inſtance of its Efficacy in a moſt deplorable Dropſy, in the *Med. Eſſays*; eighty Drops of which were given every Hour in a little Syrup of Buckthorn, which brought away many Quarts of Water by Stool the firſt Night; the Quantity was daily increaſed till it came to two Drachms, and at laſt was mixt with a fourth Part of the Syrup, and given by Spoonfuls.

In the Uſe of Cathartics, three things are to be carefully heeded: *Firſt*, Whether the Patient is eaſily purged or not; if he is, an Ounce of Syrup of Buckhorn alone will be ſufficient; if not, the ſtrongeſt of the above-mentioned will ſcarcely do.

Secondly, All Cathartics that work ſlowly are rather hurtful than beneficial; therefore a Purge had better be too ſtrong than too weak.

Thirdly,

Thirdly, the Waters should be drawn off with as much Speed as the Patient's Strength will bear; for Delays give Time for them to be collected afresh.

Sometimes *Purgatives* are to be intirely omitted, when the Patient is of a weak Constitution, or Women subject to Vapours; and then *Diuretics* only should be made use of; among which, those are the most powerful which consist of Lixivial Salts. *Sydenham.*

Mayerne prefers *Nitre* before all others, because it quenches Thirst; which I can recommend from Experience; for I knew a young Woman who had tried all other Methods in vain, and was given over as incurable, that was perfectly recovered by taking a Drachm of Nitre every Morning in a Draught of Ale. *Hoffman* directs six or eight Grains of the *Powder of Squills*, with the same Quantity of the Root of *Burnet* or *Arum*, and a few Grains of *Nitre*. It should be exhibited in a warm Vehicle. *Wagner* also gives great Encomiums of the Powder of *Squills* with *Nitre*; the Dose, he says, is from four to ten Grains, with double the Quantity of *Nitre*; it almost always operates as a Diuretic, and sometimes vomits or purges.

8. ℞. *Cinerum Geniſtæ* ℔j. *infundantur frigidè in Vin. Rhenan.* ℔iv. *Liquoris per filtrationem colati*, ℥iij. *manè, quintâ pomeridianâ, & ſerò, ſingulis Diebus exhibeantur, uſquedum Humor evanuerit.* Syd. Or,

9. ℞. *Ciner. Geniſt.* ℔j. *Fol. Abſynth. M.* j. *Vin. Rhenan.* ℔iv. *infunde frigide, Doſ.* ℥iv. *mane, horâ quartâ pomeridianâ, & ſerò.* Towne. Or,

10. ℞. *Millep. ppt.* ʒij. *Sapon. Venet.* ℥ſs. *Gum. Ammon.* ʒij. *Balſ. Sulph. Tereb. q. ſ. F. Pil.* x. *è ſing. Drach. quarum ſumat* vj. *vel* viij. *ter ſing. Diebus, ſuperbibendo Cyath. Vin. Med. ſequent.*

11. ℞. *Sal. Abſynth.* ʒj. *Sacchar. alb.* ʒiij. *Ol. Nuc. Moſchat. Chem. gutt.* vj. *Vin. alb.* ℔j. *M. F. Vin. Medicat.*

Boerhaave propoſes to attenuate the Humours by *ſmall Doſes of mercurial Preparations*, to be taken every other Morning, in a little Pulp of a roasted Apple; as half a Grain of *Turbith mineral*, with ten Grains of *white Ginger*; or one Grain of *red Precipitate*, with six Grains of *Nutmeg*; or seven Grains of *Calomel*, with eight of *Winter's Bark.* Or,

12. ℞. *Emetici mitiſſimi, ex Antimon. P.* ij. *Nitri P.* v. *detonando preparati gr.* iv. *F. Pulvis, omni mane ſumendus.* Boerh.

Some have been cured by a pertinacious Abstinence from all Liquids, living upon Sea-Biscuit with a little Salt, and a very little rich Wine. A Woman that abstained from Drinking an entire Month, used to put a Bit of Toast, dipped in Brandy, upon her Tongue, which caused the Saliva to flow into her Mouth, and so she recovered. *Heister.* Externally, Frictions of the Parts have been found beneficial, as well as external Applications, of which the following is not of the least Efficacy:

13. ℞. *Sapon. Venet.* ʒij. *Aq. Alexeter. spir.* ℥xij. *M. accurate pro fomento, Regioni Abdominis, cum laneis Pannis applicand.*

To strengthen the Tone of the debilitated *Viscera*, after the Waters are evacuated, *Wines* are proper, as also Steel, and such Strengtheners as are greatly astringent.

14. ℞. *Limatur. Ferri recent.* ʒij. *Cort. Peruv. Winteran. an.* ʒij. *Rhabarb. exsiccat.* ʒs. *Vin. Rhenan. generosiss.* ℔ij. *F. S. A. Vin. medicatum, Dos.* ʒij. *ter de Die, vacuo Stomacho.* Boerh. Or,

15. ℞. *Raphan. rustican. Fol. Coch. hortens. Absinth. vulgar. Salv. Summitat. Centaur. min. & Genist. infundantur in Cerevisia forti pro Potu ordinario.*

This *Diet-Drink* will sometimes cure an incipient Dropsy without *Cathartics.* Or,

16. ℞. *Conserv. Coch. hortens. Absinth. Roman, an.* ʒj. *Extract. Gentian. Absinth. vulgar. & Centaur. min. an.* ʒiij. *cum q. s. Syr. e Cortic. Aurant. M. F. Electuarium, de quo sumat ad Quantitatem Nuc. M. maj. mane, quinta pomeridiana, & vesperi, superbibendo* ℥iv. *sequentis Infusionis.*

17. ℞. *Rad. Gentian.* ʒj. *Summitat. Genist. Centaur. min. & Absinth. vulgar. an. M.* j. *Sem. Fœniculi & Petroselin, an.* ʒij. *incisis minutim affunde Vin. Rhenan.* ℔iv. *stent simul in Infusione frigida, & coletur solummodo Tempore Usus.*

When corroborating Medicines are used, Purging must be omitted, as also at the Time of using Lixivial Salts; but Strengtheners may be properly used with these last.

18. ℞. *Rad. Raphan. rustican.* ʒiij, *Fol. Coch. Hortens. Absinth. Vulgar. Salv. Summitat. Centaur. Minor. & Genist. an. M.* iij. *Aurant. incis.* N°. iij. *infundantur in Cong.* vi. *Cerevisiæ fortis non lupulati inter fermentandum. Sit pro Potu ordinario.* Sydenham.

Dropsies

Dropsies sometimes supervene to the *bilious Fevers of the Camp* or *Marshy* Countries, when they have continued a long while, or by frequent Relapses bring on *Obstructions of the Liver or Spleen*. In which case the Swelling generally begins at the Feet, and rises gradually to the Belly.

But when the Belly alone is suddenly swelled, after the unseasonable Use of *Opiates* in the *Dysentery*, or of the *Bark* in *Intermittents*, the Distemper is a true *Tympanitis*. In this Malady, if the Patient is *feverish* or *full of Blood*, begin with Bleeding: *If not*, it will be sufficient to give every Night a small Dose of Rhubarb, just enough to keep the Body open, with a few Grains of the *Species Aromaticæ*; after the Swelling gives way, some strengthening Medicine is to be added, thus,

19. ℞. *Flor. Chamæmel.* ʒij. *contund. cum. Syr. Cort. Aurant. q. s. ut F. cum Zinziber. pulv.* ʒij. *Chalyb. cum Sul. ppt.* ʒi. *cap. bis Die Mol. Nuc. Moschat. major.*

All strong Physic and Carminatives, without Laxatives, are hurtful.

The *Ascites* comes on more slowly, and is generally accompanied with anasarcous Swellings, a Paucity and Thickness of Urine. Sometimes the Fever goes off when the Swelling begins; at other Times it continues, or comes and goes in an irregular Manner. These Dropsies are *not to be cured by purging alone*, nor by Soap, nor Mercurials, but *chiefly by Lixivial Salts* in the Form of *Broom Ashes*, or Salt of Wormwood, or Salt of Tartar.

The common Method was this; about *gr.* xxx or xl of Salt of Tartar were dissolved in an Infusion of Wormwood, to which was added, Spirit of Juniper, and the Mixture was taken at three Doses, and repeated daily. The Patient had no other Medicine, except once in four or five Days ʒs. of *Pil. ex Colocynth. cum Aloe*, for a Purge; and, in the Decline of the Disease, some common Chalybeate.

Sometimes the *Diuresis* was promoted by swallowing *Garlic* or Mustard Seed: Tho' the *Ascites* was accompanied with a hard Tumour on the left Side of the Belly, lower than the false Ribs, nothing was done farther, unless fomenting the Part sometimes, or covering it with a warm Plaster. *Pringle.*

There is nothing cures the recent *anasarcous Dropsy* sooner than *Calomel*, given to ten Grains at a Time, with proper Intervals, to prevent a Salivation, especially when assisted with a strong Decoction of Garlic, drank two or three Times a Day. The Quantity may be a common Drinking-glass full.

With regard to the *Paracenteſis*, or Tapping, ſome Things muſt be premiſed, in order to judge when it will be convenient, and when not.

There are in reality but two kinds of *Dropſies*, the *Anaſarca*, otherwiſe called the *Leucophlegmatia*, when the extravaſated Water floats in the Cells of the *Membrana adipoſa*; and the *Aſcites*, when the Water occupies the Cavity of the *Abdomen*. In the *firſt Kind*, the Water is clear and limpid; in the *ſecond*, more thick, gelatinous, and corrupted, and even ſometimes mixed with fleſhy Concretions. I purpoſely omit taking any Notice of the *Tympany*, or *flatulent Dropſy*, as I alſo do of the *Hernia Ventoſa*, becauſe it is certain that the *Aſcites* and *Bubonocele* have always been miſtaken for theſe Diſeaſes.

It is of no great Conſequence to know whether the Water is ſhed by the Rupture of the Lymphatic Veſſels, or by its oozing through their relaxed Coats; for it is certain that the Lymphatics have ſometimes the Faculty of reimbibing the extravaſated Fluid, and carrying it back into the Current of the Circulation, after which it is often entirely evacuated through ſome Emunctory of the Body.

If any one doubts of the Poſſibility of a Cure when the Water is extravaſated, let him inject a Pint of warm Water into the *Thorax*, or into the *Abdomen* of a Dog, through a ſmall Orifice, and open him ſome Hours after, and he will not find a ſingle Drop; which proves inconteſtibly that Liquors may be abſorbed.

The Operation of the *Paracenteſis* ſeldom cures the Diſeaſe; but Dropſies that proceed from an impoveriſhed Blood, are leſs ſubject to a Relapſe, than thoſe which are owing to a precedent Diſorder of the Liver. It is not uncommon to ſee *Dropſies* terminate happily, which are the Conſequence of *Agues*, *Hæmorrhages*, or *Diarrhœas*; whereas thoſe which are complicated with a *Schirrous Liver* will not admit of a Cure.

The Water contained in the *Abdomen* will determine, by its Fluctuation, whether the Operation is proper or not: For if, when you put one Hand on one Side of the Belly, and ſtrike the oppoſite Side with the other Hand, no Undulation is perceived, you may conclude there is ſome Obſtacle to the Evacuation.

It ſometimes happens that all the Water, or great Part of it, is contained in ſmall Bladders, called *Hydatides*, adhering to the Liver and the Surface of the *Peritonæum*; and the reſt in Bladders of a different Size, ſome of which contain half a Pint or a Pint of Water. The Smallneſs of the Bladders renders

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the Operation uſeleſs; but it is not hard to be diſtinguiſhed, for there is no ſenſible Fluctuation. However, there are a few Inſtances of Perſons being cured of this Diſeaſe by the *Paracenteſis*.

If the Fluctuation is ſcarce ſenſible, except the Teguments of the Abdomen are much thickened by an *Anaſarca*, it is probable the Liquor is gelatinous, and will not paſs through a common Trochart; therefore it will be neceſſary to have them of different Sizes. I once performed the Operation, when the Waters would not paſs through a large Trochart, which obliged me to dilate the Orifice with a thick Spunge-Tent, and then there came out a prodigious Quantity of *Hydatides*, which were concreted and diſtinct, and which did not ſeem to me to differ from a *Polypus* formed in the Noſe.

A *Dropſy of the Ovaries* in Women, which may be known from the Hardneſs and Inequality of the Tumour, ſeldom admits of the Operation, becauſe the Water is generally depoſited in a great Number of Cells, which are formed in the Body of that Part; but ſometimes it occupies but one or two of the Cells, and then if the *Ovary* is greatly enlarged, the Undulation will be plainly perceived, and the Operation may ſucceed.

When the *Aſcites* and *Anaſarca* are complicated, the Operation is but ſeldom convenient; and the Water may with greater certainty be evacuated with Scarifications in the Legs.

If there is nothing which forbids the Operation, the Patient is to be placed in a Chair of a ſuitable Height; let him join his Hands ſo as to preſs his Stomach; then having dipped the Trochart in Oil, it muſt be thruſt in an Inſtant through the Teguments; then withdrawing the Perforator, the Water will paſs throug the *Canula*. It is generally performed on the Left Side, for fear of hurting the Liver, three Inches obliquely below the Navel.

If the Navel is prominent, a ſmall Puncture may be made with a Lancet through the Skin, and the Waters will empty themſelves ſpeedily through the Aperture, without any Danger of a *Hernia*, whatever Authors have ſaid to the contrary. Whether the Surgeon uſes a Lancet, or a Trochart, to make the Puncture, he needs not fear hurting the Inteſtines, for the Meſentery keeps them out of the Reach of the Inſtrument. But ſometimes, when the Water is almoſt all evacuated, it is ſtopped all of a ſudden by an Inteſtine, or the *Epiploon*, in which Caſe it muſt be put back with a *Probe*.

During the Evacuation, the Surgeon's Aſſiſtants muſt compreſs both Sides of the Belly, with the ſame Force as the Wa-

ters themselves did, otherwise the Patient will be apt to faint; because the Vessels of the *Abdomen* being freed from their former Weight, the *Diaphragm* will sink down; and consequently the inferior Vessels will be more distended with the Blood, while the superior being suddenly emptied, the free Course of the Circulation will be interrupted.

For this Purpose, though the Hands will be sufficient during the Operation, yet afterwards there must be a Roller of Flannel, about eight Yards long and five Inches broad, which must be first swathed about the lower Part of the Belly, that the Bowels may better resist the Diaphragm. This Roller may be changed every Day, for three or four Days, in which Time the different Parts will have regained their natural Tone.

A little dry Lint, covered with a Plaister, will be sufficient for the Dressing; but it will be proper to put between the Roller and the Dressing a double Flannel, about a Foot square, dipt in Brandy.

Though this Operation may not cause a radical Cure, it may preserve the Patient's Life many Years, and render it very supportable, especially if the Waters do not gather again speedily. There have been some Patients who have never relapsed. And indeed the Operation is attended with so little Pain and Danger, that I cannot but recommend it as extremely useful. *Sharp.*

Of the Hydrocele, *or* Dropsy *of the* Scrotum.

THE *Hydrocele*, called the *Dropsy* of the *Scrotum*, *Hernia Aquosa*, and the *Dropsy* of the *Testicle*, is an aqueous Tumour of the *Scrotum*. Though Authors mention several Kinds, there are but two. The first is, when the Water is contained in the *Tunica Vaginalis*; the second, when it is contained in the *Cellular Membrane* of the *Scrotum*. This last is almost always complicated with an *Anasarca*, a Kind of Dropsy which consists in the Extravasation of the Water, which lodges in the Cells of the *Membrana adiposa*. The *Hydrocele*, in this Case, is known without any Difficulty; for the Skin is shining and soft, yielding easily to a slight Impression, which will remain pitted for some Time; the *Penis* is also sometimes prodigiously swelled, by the Liquor which insinuates into the

Cellular

Cellular Membrane. There are none of these Symptoms in the Dropsy of the *Tunica Vaginalis*.

In the Dropsy of the *Cellular Membrane* of the *Scrotum*, some recommend the Puncture with a *Trochart*; others, to make small Apertures here and there with the Point of a Lancet; others, to put a small Skane of Silk through the Skin with a Needle, and to let it remain as a Seton, till all the Water is drained off. But the two first Methods yield very little Relief, and the last may be more likely to induce a Gangrene. Nor is there Occasion for any Operation at all, because the cellular Membrane of the *Scrotum* is nothing but a Continuation of the *Membrana adiposa*; and therefore Scarifications, made in the Skin of the Small of the Legs, will effectually empty the *Scrotum*.

Yet sometimes there falls so great a Quantity of Water into the *Scrotum*, that the Distension is very painful, threatening a Mortification. Likewise the Prepuce very often is so excessively dilated and twisted, that it hinders the Patient from making Water.

In these Cases there should be an Incision made on each Side the *Scrotum*, three Inches in Length, quite through the Skin, into the Cells which contain the Water; and likewise two or three, half an Inch long, in any Part of the *Penis*, with a Lancet or Knife.

All this may be done without any Danger, and sometimes with such Success as to cure the Dropsy of the whole Body. Though I have performed this Operation on Patients in a very languishing Condition, yet as I made the Wound with a sharp Instrument, and afterwards treated it with Fomentations and soft Digestives, I never found a Gangrene ensue.

The *Dropsy* of the *Tunica Vaginalis* is caused by an excessive Accumulation of a Serosity, which is naturally separated in the internal Surface of that *Tunic* in a small Quantity, to moisten and lubricate the Testicle. Authors have hitherto distinguished them into two Sorts; the one on the Inside of the *Tunica Vaginalis*; and the other on the Outside, between that and the *Scrotum*, which they suppose to proceed from Water in the *Dropsy Ascites*. But Anatomy shews the Absurdity of this Opinion; for besides that Persons afflicted with this Kind of *Hydrocele* have seldom any other Dropsy; and those who have the *Ascites* are free from this *Hydrocele*; the *Tunica vaginalis* is, like a Purse, quite shut up on the Outside of the Abdomen, so that the Water cannot insinuate into it from any Part.

As to the Notion that the Water falls from the Abdomen into the Interstice, between the *Tunica vaginalis* and the *Scrotum*, it

is equally impoſſible. For though in the *inteſtinal Rupture* the Gut falls into this Place, yet it brings the *Peritonæum* along with it, and that will prevent the Egreſs of the Water. This is a Circumſtance the Ancients were unacquainted with, and the Moderns have not ſufficiently attended to.

This Diſorder is ſeldom attended with Pain in the Beginning, contrary to what happens in the *Hernia* of the *Epiploon*, and of the *Inteſtine*; nor is it often the Effect of any Accident. It never diminiſhes when once begun, and generally continues to increaſe; but in ſome Perſons not ſo quick as in others. In one Perſon it will grow to a very painful Diſtenſion in a few Months; in another, it ſhall not be troubleſome in many Years; nay, ſhall ceaſe to diſtend at a certain Period, and afterwards continue in that State without any notable Diſadvantage. But this is rare.

In Proportion as it enlarges it becomes more tenſe, and then is ſaid to be tranſparent; but this is not always the Caſe; for ſometimes the *Scrotum* is very much thickened, and the Water itſelf opake; ſo that to judge poſitively if there be a Fluid, we muſt be guided by feeling a Fluctuation: And though ſometimes it is not very evident, yet we may be ſure there is a Fluid of ſome Kind, if we are certain that the Diſtenſion of the *Tunica Vaginalis* makes the Tumour.

When a Gut, or the *Omentum*, form the Swelling, it is ſoft and pliable, unleſs inflamed and uneven in the Surface, and reaches from the *Scrotum* into the very *Abdomen*; whereas the *Hydrocele* is tenſe and ſmooth, and ceaſes before or when it arrives at the Rings of the Abdominal Muſcles.

When the Teſticle is encreaſed in Size, the Tumour is rounded, and if not attended with an Enlargement of the Spermatic Veſſels, the Cord may be eaſily diſtinguiſhed between the Tumour and the Abdomen; but without this, the Pain, or the very great Hardneſs, will diſcover it to be a Diſeaſe of the Teſticles.

As to the *Cure*, I have found little Succeſs either from inward Medicines or outward Applications; therefore it will be moſt adviſeable to wait till the Tumour becomes troubleſome, and then to tap it with a Lancet. If the Orifice of the Skin ſlips away from that of the Tunic, and prevents the Egreſs of the Water, you may introduce a Probe, and by that means ſecure the exact Situation of the Wound. When the *Tunica Vaginalis* is very tenſe, the Teſticle itſelf cannot be eaſily diſtinguiſhed; but there will, I think, be no Danger of wounding it, if you open the inferior Part of the *Scrotum*, and not with too long

long a Lancet. During the Evacuation, the *Scrotum* muſt be regularly preſſed; and after the Operation, a little Piece of dry Lint and ſticking Plaiſter are ſufficient. This is called a *Palliative Cure*, but it now and then proves an abſolute one. It is dangerous to attempt a radical Cure by making a large Wound, either by an Inciſion or *Cauſtic*, and therefore that Method ought to be diſcarded. *Sharp.*

Of the Jaundice.

THE *Jaundice* is a Diſeaſe which is principally diſcovered by the yellow Tincture of the Skin, but moſt diſtinctly in the Coats of the Eyes, where it gives the firſt Notice of its Invaſion.

The *Symptoms* are Heavineſs, Inactivity, Laſſitude of the whole Body, Anxiety, Uneaſineſs about the *Hypochondria*, Sickneſs at the Stomach, Oppreſſion in the Breaſt, difficult Reſpiration, a dry and harſh Skin, Coſtiveneſs, hard, white Excrements, yellow, high-coloured Urine, which will tincture Linen or Paper with a Saffron Hue; there is a bitter Taſte in the Mouth, and all Objects ſeem to be diſcoloured. *Sydenham. Towne.*

The immediate *Cauſe* of a *Jaundice* is an obſtructed Excretion of the *Bile* from the *Veſica Fellis* and Liver, into the *Duodenum*; which, being forced back upon the Liver, mixes with the Blood, by which it is carried into the whole Body, whence the Skin and Urine will be tinctured with the Colour of the Bile.

This Obſtruction may be occaſioned by any thing in the *Duct*, which plugs up the Paſſage, or by external Preſſure cloſes its Mouth, or by a Spaſm contracting the Fibres thereof. Hence we may conceive why the *Jaundice* ſucceeds the *flatulent Colic*, why pregnant Women are ſubject to this Diſeaſe, and why Spaſms of Hypochondriacal and Hyſterical Perſons produce the ſame Effects. *Towne.*

Sudden Fright, the Generation of too great Plenty of Bile, ſchirrhous Tumours, or Ulcers of the Liver, Obſtructions of the Menſes, obſtinate intermitting Fevers, and the Bites of venomous Animals, will alſo produce this Diſeaſe.

The *Prognoſtics of this Diſeaſe* differ with regard to the Patient's Age, Habit, Strength, and Conſtitution, as well as with reſpect

reſpect to the Virulence or Mildneſs of the Cauſes, and its Duration. When the Patient is young, and the Diſeaſe not complicated with any other, ſuch as a *Quartan Ague*, the *Affectio Hypochondriaca*, or an *Obſtruction* or *Schirrhus of the Liver*, and has not continued long, it is eaſily cured. But if after the Cure it frequently returns, with a *yellow greeniſh Colour*, and an Induration of the Liver, it generally terminates in a *Hectic* or an Hæmorrhage. A *Jaundice*, ariſing from violent Tranſports of Anger, or the ſpaſmodic Stricture of the Inteſtines or biliary Ducts, cauſed by a draſtic Purge or Emetic, is eaſily cured if taken in Time; but if encouraged by Grief, or the Body is weakened by a previous Diſorder, the Cure is more difficult.

Emetics are highly proper in the *Cure of the Jaundice*, and yield ſpeedy Relief, if the Diſeaſe does not proceed from *violent Anger*, *Spaſms of the Stomach*, a *Cardialgia*, a *ſpaſmodic Colic*, or a Stone lodged in the *Cyſtic Duct*, exciting a violent Uneaſineſs about the *Præcordia*. Yet I lately ſaw a Merchant, who was afflicted with a *Jaundice*, *Aſthma*, and *Dropſy*, by taking an Infuſion of the middle Bark of Elder, which worked him upwards and downwards, void thirteen Stones by Stool, of a triangular Shape. But when a *bilious Sordes* lodged in the *Duodenum*, and cloſing up the Orifice of the *Ductus Choledochus*, intercepts the Paſſage of the Bile; or when a tenacious, moveable, and not highly concreted, bilious Matter plugs up the *hepatic Ducts*, *Emetics* are of ſingular Efficacy in evacuating it. A *Scruple* of *Ipecacuanha*, with a Grain of *Tartar Emetic*, in a Draught of generous Wine, or in an Infuſion of Manna, drinking Water-Gruel after it. *Hoffman.*

Likewiſe in this Caſe, after *Emetics*, *Cathartics* will be proper, compounded of *Aloetics* and *Mercurials*; then *ſaponaceous Attenuants*, *Preparations of Tartar* and *Volatiles*; and laſt of all, *Chalybeates*. But take Heed not to give the laſt till the Humours are ſufficiently attenuated, for otherwiſe an incurable *Schirrus* of the Liver may enſue.

And here I cannot but recommend the *Terra foliata Tartari*, otherwiſe called *Tartarum regeneratum*, [and by the College, *Sal diureticus*,] as the greateſt Diſſolvent, and the moſt powerful Remedy in this Diſeaſe. It diſſolves the moſt tenacious Subſtances, and opens all Obſtructions of the *Viſcera*, and yet has no Acrimony, and may be ſafely given in the *Pleuriſy* and *Dropſy*. I have experienced its Virtue a thouſand Times in the Courſe of twenty Years Practice. *Huxham.* Its Doſe is from five Grains to a Scruple, and upwards.

Saponaceous Medicines are often given for the ſame Intention in this Diſeaſe, with Succeſs; thus:

1. ℞. *Sapon. Caſtilienſ.* ℥iij. *Rhei Pulv. Spec. Hier. Picr. an.* ℥ſs. *Syr. è Cor. Aurant. q. ſ. M. F. Electuarium. Cap. ab* ʒſs. *ad* ʒj. *bis in Die.* Or,

2. ℞. *Conſerv. Aurant.* ℥ſs. *Cinnab. Antim. ppt. Sapon. Caſtilienſ. an.* ℥ſs. *Millep. ppt.* ʒiij. *Croc. pulv.* ʒſs. *Syr. è Cort. Aurant. q. ſ. M. F. Elect.*

After ſome time, with the above Precaution, may be added, *Limatur. Mart.* ℥ſs. Or,

3. ℞. *Gum. Ammoniac.* ʒij. *Scill. pulv.* ʒj. *Sapon. Caſtil.* ʒiij. *Sacchar. alb. q. ſ. M. F. Pilulæ ex ſingulis Drachmis,* No. x. *cap.* iij. *mane et hora ſomni.* Or,

4. ℞. *Crem. Tart. Coccinel. an.* ℈j. *Sapon. Venet.* ʒij. *M. F. Pil. pro ſex Doſibus. Cap. unam bis vel ter in die.* Or,

5. ℞. *Sapon. Venet.* ʒij. *Croc. Sal. Martis, Sal. Succin. an.* ℈j. *Ol. Junip. gut.* xij. *M. F. Pil. pro* viij. *Doſibus, cap. ut prius.* Or,

6. ℞. *Tart. Vitriolat. Croc. an.* ʒij. *Sal. Succin.* ℈j. *Sapon. Caſtil.* ʒij. *Ol. Junip. gut.* x. *M. F. Pil. mediocres, Doſis* v. *bis vel ter in die.* Or,

7. ℞. *Millep.* ℔ſs. *infund. in Vin. alb. per dies* iv. *vel* v. *deinde exprime fortiter, & adde Croci* ʒiij. *Sal. Mart.* ʒj. *Sal. Succin.* ʒſs. *poſt dies* iv. *cola pro Uſu. Doſis* ℥ij. *ter in die.*

Theſe are Attenuants, which ſhould be preceded with gentle Purgatives; for *Hoffman* affirms, that all draſtic Purgatives are prejudicial, as they increaſe Spaſms, throw the Blood into violent Commotions, and impair the Strength. Therefore, beſides thoſe which *Huxham* has directed above, the following *Formulæ* may ſometimes be proper:

8. ℞. *Rhei optim. pulv.* ʒſs. *Crem. Tartar.* ʒj. *Aq. Cinnam. ſim.* ℥iij. *Syr. Roſar. ſol.* ʒij. *M. F. Hauſtus.* Or,

9. ℞. *Sen.* ʒij. *Rhei* ʒj. *Sal. Tart. gr.* xij. *infunde in Aqua bullient. q. ſ. Colatur.* ℥iij. *admiſce Syr. Roſar. ſolut.* ℥j. *Aq. è Cort. Aurant.* ʒij. *M. F. Hauſtus.* Or

10. ℞. *Rhei* ℥iij. *Sal. Tart.* ℈j. *infund. in Aq. bullient. q. ſ. Colatur.* ℥iv. *admiſce Syr. Roſar. ſolut.* ℥ſs. *M. F. Hauſtus.*

When a *Jaundice* ſucceeds the *Colic*, all Purgatives are to be omitted, *Rhubarb* only excepted, and this is not to be preſcribed without evident Reaſon. It generally diſappears without

out the Aſſiſtance of Medicines; but if it continues ſome Time, I generally uſe the following:

11. ℞. *Rad. rub. Tinctur. & Curcum. an.* ℥j. *Chelidon. maj. cum toto, & Summitat. Centaur. min. an. M.* j. *coq. in æqualibus Partibus Vini Rhenani & aquæ Fontan. ad* ℔xij. *Colatur. diſſolv. Syrup. pector.* ℥ij. *M. F. Apozem.*

The Patient is to take half a Pint, Morning and Evening, till he recovers. But if the *Jaundice* comes on without any *preceding Colic*, then give any of the Purgatives above recommended once or twice before the Uſe of the *Apozem*, drinking a Glaſs of Rheniſh Wine after it. Or the Patient may take the *common Purging Potion*, every fourth Day, during the Uſe of the following Things:

12. ℞. *Conſerv. Abſinth. Roman. Conſerv. flaved. Aurant. an.* ℥j. *Angel. condit. Nuc. Moſchat. condit. Pulv. Ari comp. Chalyb. cum Sulph. ppt. an.* ℥ſs. *Extract. Centaur. min. Extract. Gentian. & Crem. Tartar. an.* ʒij. *Croci Ang. pulv.* ℥ſs. *cum q. ſ. Syr. pectoral. F. Electuarium, de quo cap. ad Magnitud. Nuc. Moſchat. mane & hora quinta pomeridiana, ſuperbibendo poſt matutinam Doſin Aquarum Mineralium purgantium* ℔iv. *& poſt pomeridianam Doſin Apozem. preced.*

If there are Signs of a *Dropſy*, let the Patient drink of the Apozem Morning and Evening.

Inſtead of the above *Electuary*, the following may be ſubſtituted:

13. ℞. *Conſerv. Abſinth. Roman.* ℥j. *Chalyb. cum Sulph. ppt. Rad. Curcum. pulv. an* ʒij. *Syr. è Cortic. Aurant. q. ſ. M. F. Electuarium.* Or,

14. ℞. *Rad. rub. Tinctor. Rad. Chelidon. maj. an.* ʒj. *Cort. interior. Berber. Summitat. Abſinth. Roman. infund. in Vin. alb.* ℔j. *Cap. Coch.* iv. *per ſe vel cum Electuario.*

If the Diſeaſe will not yield to this Method, then *Chalybeate Waters* will be proper, ſuch as thoſe of *Bagnigge*, drank on the Spot. *Sydenham.*

In a ſtubborn *Jaundice*, I recommend *Æthiops mineral*, from often repeated Experience. *Allen.*

When a *Jaundice* is attended with an *Hæmorrhage*, it is always dangerous, becauſe it denotes a moſt acrimonious, and diſſolved State of the Blood; in which Caſe, *Attenuants*, *Aloetics*, *Volatiles*, and *Chalybeates*, are little better than Poiſon; whereas *Acids*, *Diluents*, *Demulcents*, and mineral Waters are very beneficial. *Hemp-Seed*, boiled in Milk, till it breaks, is often

often advantageous; the Dose is ℥v. twice a Day *. Or an Emulsion of white Poppy-Seeds and Sweet Almonds, after moderate Bleeding, if the Patient is feverish, and the Pulse will allow it) and gentle Purging. I am in doubt whether *moderate Bleeding* is not as necessary in the *Hepatitis*, and consequently in an Obstruction of the Liver with a feverish Disposition of the Blood, as in the *Pleurisy* and *Peripneumony*; because it prevents Inflammations, Imposthumes, and *Schirrus's*. *Huxham.*

Of the Bilious Colic.

A *Bilious Colic* is chiefly attended with the following *Symptoms*; a hoarse Voice, a *Cardialgia*, a continual Loathing of Victuals, a vomiting of bilious, poraceous Matter, Hiccup, a feverish Heat, Inquietude, intense Thirst, a bitter Taste in the Mouth, and the Urine little and high-coloured. *Hoffman.* Add to these, a burning, acute, continual Pain about the Region of the Navel, *(Towne;)* which either seems to bind the Belly as it were with a Girdle, or is contracted into a Point, as if the Patient was bored through, which sometimes remits and then grows more violent. In the Beginning it is not so much determined to one Point, nor is the Vomiting so frequent, nor does the Body so obstinately withstand the Force of Cathartics. But as the Pain increases the more it is fixed to a Point, the Vomiting is more frequent, the Body more costive, till at length it terminates in the *Iliac Passion*. *Sydenham.* At this Time the Pain is so intense as to occasion a *Singultus*, a *Delirium*, Coldness in the Extremities, and chilling clammy Sweats, which are always a dangerous Omen in this Disease. *Towne.*

It is distinguished from a *Fit of the Gravel*, as the Pain in this lies in the Kidney, and is extended from thence by the Ureter to the Testicle; after Eating, the *Colic Pain* increases, the *Nepritic* abates; Evacuation upward or downward relieve the *Colic* more than a Fit of the Gravel. The Urine in the latter is more clear and thin at first, afterwards there is a Sedi-

* *Floyer* directs it thus: Take a Handful of *Hemp-Seed*, and boil it a Pint of Milk, sweeten and strain it; use it nine Mornings, it purges and opens. Or thus,

Boil four Ounces of Hemp-Seed in two Quarts of Ale, sweeten and give half a Pint for divers Mornings. Use several Quarts of this as an approved Medicine for the *Jaundice*.

ment,

ment, and at length Gravel or ſmall Stones; whereas in the Colic, the Urine is more thick in the Beginning.

Bleed freely in the Arm, and after three or four Hours exhibit an *Anodyne*, and the next Day a *gentle Cathartic*, which may be repeated every other Day, to the third Time. *Sydenham.*

The ſafeſt Way will be to mix Opiates and Cathartics together, thus:

1. ℞. *Extract. Cathart.* ʒſs. *Extract. Thebaic. gr.* j. *Ol. Caryophyl. gutt.* ij. *M. F. Pel.* v. Or,
2. ℞. *Pil. ex Colocynth. ſimp.* ʒſs. *Calomel.* ℈j. *Extract. Thebaic. gr.* iſs. *Ol Caryoph. gutt.* ij. *M. F. Pil.*

During the Operation of theſe Pills, the Patient muſt drink Water-Gruel with *Manna* if the Vomiting will permit. After it is over, an Opiate will be proper: This Method ſhould be repeated till there is Reaſon to believe the acrimonious Matter is entirely evacuated. After the Recovery, it will be proper to give three Spoonfuls of the *Vinous Tincture of Rhubarb*, at leaſt twice a Week for a Month following. *Towne.*

Sydenham recommends Riding, eſpecially when the Cure is only palliated with Opiates; *Towne*, to the Natives, ſailing round the Iſland of *Barbadoes*, as an excellent Expedient to procure a perfect Recovery.

When there has been any preceding Illneſs which required copious Evacuations, *Sydenham* begins the Cure with *Opiates*. He thinks *carminative Clyſters* only exaſperate the Diſeaſe: But when the Patient has been fatigued with an injudicious Handling of the Diſorder, and is almoſt ſpent, he allows the Uſe of *Aqua mirabilis*, or ſome ſuch Liquor, as likely to be of the beſt Service.

If the Diſeaſe is cauſed by a plentiful Eating of Summer-Fruits, he would have the Patient drink Poſſet-drink plentifully, then take an Anodyne, bleed the next Day, and then proceed as above directed.

Potter, in the *Med. Eſſays*, ſays, it is evident from Obſervations, that this Diſeaſe is attended with a *Stricture*, which has ſometimes entirely ſhut up the Paſſage downwards, as if the Inteſtines had been ſtrongly girt round with a Ligature. And tho' by *Bleeding* the Tenſion of the Bowels is eaſed, a Revulſion made, and an Inflammation prevented; tho' *briſk Cathartics* are proper to urge forward the obſtructed, acrid, morbid Matter; tho' by ſubſequent *lenient Medicines* the Operation of the former is forwarded with leſs Violence; and tho' by *Anodynes* a Suſpenſion of Pain may be procured, and the convulſive

convulsive Contraction of the Intestines may be diminished; yet the Disease sometimes eludes the Effort of this Method; nor will Clysters help the Misfortune at all; for they cannot pass beyond the Valve of the *Ilion*'s Entrance into the *Cæcum*. Therefore Recourse must be had to a *warm Bath*, prepared of an emollient Decoction, which will be an universal *Fotus* to the lower Trunk of the Body: And he is persuaded, from Experience, that many an *Iliac Passion* might have been prevented by an early Conjunction of the *warm Bath* with the other Method of Cure.

Russel observes, that when the *Colic* proceeds from Costiveness without a Fever, then a Pint of Sea-Water, drank every Morning, will cure it. But if the first Onset of the Disease is neglected, and it proceeds to an Inflammation, with a Fever, Vomiting, and Retention of the Excrement; and there is Reason to be apprehensive of the *Iliac Passion*, when black Vomiting supervenes, and the *Fæces* are thrown up by the Mouth; as also when there is a quick weak Pulse and cold Sweats supervene, then the Patient will be carried off by a Mortification. Sometimes, after the Rigors, *Pus* will show itself in some Place or other, which prevents immediate Death, while a purulent *Tenesmus* afflicts the unhappy Patient.

All *resinous*, *aloetic*, and *scammoniac* Purges, with *Calomel*, are to be rejected in the *Inflammatory* State of this *Colic*; and, after Bleeding freely, the following *Bolus* is to be given, which has been used with great Success.

℞. *Tartar. vitriolat.* ℈ij. *vel* ʒj. *Salis Tartar. gr.* viij. *vel* ℈ss. *Ol. Nuc. Moschat. essent. gut.* j. *Elect. Lenitiv. q. s. M. F. Bolus quartâ quâque Horâ sumend. donec Alvus libere dejecerit.*

Two or three Doses, in the most obstinate Cases, are generally purgative, and then all Danger is over; after which Sea-Water, taken every other Day, will prevent the Return of the Inflammation. When the Case requires it, a *Semicupium* may be directed before the Use of the Cathartic.

Of the Hysteric Colic.

THIS is a common Symptom of the *Hysteric Passion*, and is attended with a most violent Pain about the Pit of the Stomach, as also with a Vomiting of the greenish Humour, and

a great ſinking of the Spirits: After a Day or two the Pain goes off, but upon the ſlighteſt Motion or Perturbation of the Mind, it ſoon returns again.

Neither *Bleeding* nor *Cathartics* have any Place in the Cure, for they exaſperate the Diſtemper; nay, the moſt *gentle Clyſters* are prejudicial: For this Diſeaſe ſeems rather to proceed from a Diſorder of the Spirits, than from a Fault of the Humours. It will be proper firſt to adviſe the Patient to drink upwards of a Gallon of Poſſet-Drink, to clear the Stomach of its Impurities, by throwing it up again, that the Effects of the Paregoric may not be hindered. Afterwards give twenty-five Drops of the *Thebaic Tincture*, in ℥j. of *Aq. Cinnam. ſpir.* This laſt is to be repeated, at due Intervals, till the Symptoms diſappear; that is, the Effect of one Doſe muſt be known before another is given. Yet ſometimes, in *Plethoric* Bodies, if the Strength will permit, it is better to prepare the Way by Bleeding and Purging, or both, for an *Anodyne*.

But if the *Hyſteric Colic* comes by Fits, the following things may be uſed in the Intervals, or when the Fit is off:

1. ℞. *Zedoar. ſubtiliſ. pulv.* ʒj. *cum. q. ſ. Syr. è Cort. Aurant. F. Bolus ſumendus mane & ſero per* xxx *Dies, ſuperbibendo ſequentem Infuſionem:*

2. ℞. *Zedoar. inciſ. minutim* ℥ſs. *Vin. Canar.* ℥iv. *infundantur frigidè per* xij. *Horas. Deinde colentur pro Uſu.*

Or the Patient may take large Doſes of the *Balſam of Peru*, that is, twenty, thirty, or forty Drops in a Spoonful of the fineſt and whiteſt Sugar. This may be taken twice or thrice in a Day.

Sometimes this *Colic* is ſucceeded by the *Jaundice*, which generally diſappears of itſelf. But if it continues long, it ſhould be treated with Remedies proper for this Diſeaſe. But no other *Cathartic* beſides *Rhubarb* ſhould be made Uſe of. SYDENHAM.

Of the FLATULENT *or* WIND COLIC.

IF there is a fixed and tenſive Pain in the *Right* or *Left Hypochondrium*, or beneath the Stomach, it is a certain Sign that there is *Wind* or Excrements pent up in the *Flexures of the Colon*. If the Pain is in the ſmall Guts, the *Abdomen* will be wonderfully ſwelled and puffed up; and the Force of the Wind is often ſo great, and it diſtends the Skin to ſuch a Degree, that the

the Pain is exasperated merely by touching it; nor do there want Instances of a Navel-Rupture arising therefrom. The Pains are very acute, the Body extremely costive, there is a Sense of a very great Straightness or Contraction, and if the Stomach is inflated, the Breathing becomes very difficult, and the Eructations are attended with some small Relief. Afterwards there are *cardialgic Passions*, and an ineffectual Reaching to vomit.

If the Disorder lies in the *Flexures of the Colon*, *emollient* and *discutient Clysters* will be proper, as also *carminative* and *emollient Liniments* applied to the pained Part.

1. ℞. *Chamæmel. M.* ij. *Summitat. Centaur. min. Pug.* iv. *Sem. Anisi, Carui, Cumin. Fœnic. an.* ʒj. *Coq. in Aq. Fontan.* ℔jss. *Colatur. adde Syrup. ex Althæa* ʒjss. *Ol. Anis.* ʒij. *Sal. Gem.* ʒiij. *M. F. Enema.*

The following Fomentation may also yield Relief:

2. ℞. *Flor. Chamæmel.* ʒij. *Bacc. Junip. Lauri, an.* ʒj. *Coq. in Aq. & Vin. Maderens. an.* ℔ij. *addend. sub finem Coctionis Sem. Fœnic. Carui, Anisi, Cumini, an.* ʒss. *Colatur. adde Spir. Vin.* ℔j.

When the Body is opened by this Means, it will be beneficial to give some lenient Purge, as *Manna*, *Cream of Tartar*, *Terra Foliata Tartari*, with a Spoonful or two of Oil of Sweet Almonds.

If the *flatulent Colic* arises from a Weakness of the Stomach and Intestines, from Indigestion, from crude windy Aliment, then *Carminatives* and warm Remedies will be useful.

3. ℞. *Cort. Aurant. extern. siccat.* ʒiv. *Cal. Aromat. Galang. Bacc. Lauri, an.* ʒj. *Cinnam. Sem. Cymin. an.* ʒss. *M. F. Pulvis. Dosis* ʒj. *in Vino sumendus.* Or,

4. ℞. *Pulv. Flor. Chamæmel. Sem. Anis. an. gr.* xv. *Rad. Angel. Hispan. Zedoar. Cinnam. Pulv. an. gr.* vi. *Ol. Carui, gut.* ii. *Extract. Thebaic. gr.* i. *M. F. Pulvis, Hora Somni sumendus.*

Likewise the following Mixture is very useful in a *flatulent Colic*:

5. ℞. *Aq. Fœnicul. Aq. Cort. Aurant. simp. an.* ʒiv. *Aq. Junip. compos.* ʒiv. *Spir. Nitr. dulc.* ʒiss. *Syr. e Cort. Aurant.* ʒi. *M.*

While the Pain is violent give a Spoonful of this Mixture every Hour; when it remits a little every two Hours. The Infusion of *Chamomile Flowers* and *Yarrow*, in the Manner of

Tea, being frequently drank, is very powerful in easing these Pains.

It will be also beneficial to apply hot Bricks or Tiles to the Part affected; also Bags with *parched Oats* and Carminative Ingredients, as Carraway-Seeds, *Juniper* and *Bay-Berries*, with decrepitated Salt. A *Clyster* of the Smoak of Tobacco, blown through a Pipe into the *Anus*, is reckoned an excellent thing. And I have known Peasants, who have been subject to most violent Colic Pains, relieved instantaneously by swallowing the Smoak.

When *indurated Fæces* plug up the *Intestinum Rectum*, so that the *Wind* and *Scybals* can make no Exit, then the *Anus* is to be fomented with emollient Decoctions; and saline Suppositories, with Fat, are to be used; also some Ounces of Linseed Oil, with an emollient Decoction, in which *Venice Soap* has been dissolved, are to be injected as a Clyster. HOFFMAN.

Of the COLIC *from* FUMES *of* LEAD.

THIS is a Disease to which all Workers in Lead are subject, and is attended with an intolerable Pain in the Intestines, and a most costive Body; the Navel is drawn inward; there is the highest Inquietude, and the Contraction of the Joints, attended with a *Nausea*, and a constant Reaching to vomit. It is apt to terminate in a *Paresis* (a Kind of *Palsy*,) or *spasmodic Asthma*, and afflicts the Patient a long Time. It is sometimes owing to the Rashness of *Medicasters*, in giving Preparations of Lead in the *Gonorrhœa*, and other Distempers.

There is no better Preservative against this Disease, than by taking fat Broth in a Morning; the *Cure* is to be attempted with *Oleous Clysters*, and a plentiful Use of Oil of Sweet Almonds taken by the Mouth, with or without a Solution of *Manna*, by which the desired End will generally be obtained. For the Cure for the *Paresis*, Baths of Sweet Water are necessary; after which the Spine of the Back must be anointed with a Liniment made of the Fat of a Hog, expressed Oil of Nutmegs, *Ol. Hyosciani*, Saffron, and Oil of Rosemary, which is a speedy and a certain Remedy. HOFFMAN.

This Disease is called *Mill-Reek* by the Miners at *Lead-Hills* in *Scotland*, which all the Inhabitants there are subject to; but Melters of Lead have it with the greatest Violence.

In the slighter Stage of it there is an Uneasiness and Weight about the Stomach, particularly near the *Cartilago Ensiformis*, and

and ſometimes it is like a Colic in the Inteſtines. The Spittle of the Patient is ſweet, and inclining to a blueiſh Colour, reſembling that of a Perſon who chews Lead. The Pulſe is lowiſh, and the Skin is all over cold, with frequent clammy Sweats. The Legs become feeble, with a pricking Numbneſs, and the whole Body is lazy and feeble. Sometimes a ſpontaneous *Diarrhœa* carries off the Diſeaſe; but if it continues long, it is very prejudicial. During this Stage the Patient is able to work.

When theſe Symptoms continue long, and ſpirituous Liquors are drunk on an empty Stomach, or after the working of Lead, the *ſecond Stage* comes on; and then there is a fixed Pain in the Stomach and Guts, eſpecially in the lower Part of the Belly, extending from one Hip Bone to the other, with Coſtiveneſs, and a gnawing Pain. The Pulſe then becomes weak, and the Skin hot. There is likewiſe a Giddineſs, and a violent Pain in the Head, which is ſucceeded by an Inſenſibility, and a Delirium of the worſt Kind; for they bite their Hands, and tear their own Fleſh. Then their Extremities tremble with Convulſions, and at length they ſink, with an intermitting Pulſe, and die of a *Coma*, or *Apoplexy*.

The Smoke or Fumes of Lead turn the adjacent Graſs blue, hurt the Water, kill Birds in the Air, Beaſts in the Field, and affect Dogs in the ſame Manner as Men. Theſe laſt, when they cannot riſe, will tear up the Ground they lie on.

If proper Medicines are given in the firſt Stage of the Diſeaſe, the Patient generally recovers. If it proceeds till the Giddineſs comes on, the Succeſs is doubtful; but after that it almoſt always proves mortal.

Workers in Lead ſhould never go to their Buſineſs faſting, and their Food ought to be oily or fat. A Glaſs of Sallad Oil, with a little Brandy, Rum, or other Spirit, is a good Morning's Draught, but Spirits alone ſhould never be taken while at Work, nor immediately after it. Phyſick ſhould be taken Spring and Fall, and no Man ſhould go into the cold Air while hot with Labour, and they ſhould change their Working Cloaths for others as ſoon as poſſible. Liquid Aliment is beſt, ſuch as fat Broth with good Meat; for low Living is bad. They ſhould now and then go a little way out of the tainted Air.

If the Patient is plethoric, the Cure is to be begun with Bleeding, and then the *Primæ Viæ* muſt be cleanſed with a double Doſe of Emetic Wine, or Emetic Tartar, otherwiſe it will have no Effect. They will even bear half a Dram of *Vitrum Antimonii* in fine Powder, with Plenty of warm Water during the Operation. If the Vomit works well upwards and downwards, the Patient is in a fair way of Recovery. Then a milder

Doſe of *Ipecacuanha* muſt be given with *Tartar Emetic*. If the Doſe does not work either way, he is generally the worſe for it, and a ſtronger Doſe ſhould be given ſoon after. If it vomits but does not purge, an *Antimonial Cathartic*, or *Jalap* and *Mercury* ſhould be exhibited in a larger Quantity than ordinary, and then the Patient ſhould drink plentifully of warm Broth. The Vomits and Purges ſhould be repeated at proper Intervals, till the Diſeaſe diſappears. If they work too much, an Opiate may be given at Night, but with Caution, for fear of rendering the Patient coſtive, which is the worſt thing that can befall him. When Purgatives do not operate ſufficiently, emollient, laxative, and anodyne Clyſters muſt be injected frequently to empty the Guts.

When Blood and Matter is voided with the Fæces, Emetics and Purgatives muſt be forborne, till healing, balſamic, and laxative Clyſters, with mild Food, cauſe theſe Appearances to ceaſe. When the Belly is much ſwelled, emollient Fomentations ſhould often be applied thereto. But if the Madneſs is begun, the Patient ſhould be kept as quiet as poſſible during the little Time he has to live.

In ſome, when the Complaint of the Bowels is gone, there is a pricking Pain and Feebleneſs of the Legs, not unlike a Rheumatiſm, and then they muſt be rubbed with a coarſe Cloth, or Fleſh Bruſh. If that fails, embrocate the Part with Nerve Ointment, mixed with Oil of Turpentine, before the Fire. When the Pains are violent, and the Feebleneſs reſembles a Palſy, Bliſters muſt be applied to the Part over the large Nerves, and Medicines for the Palſy muſt be given inwardly. If the Patient is emaciated with a Hectic, and with a Giddineſs in the Head, talking idly, he ſhould ride every Day, and take Bitters with the Bark and Steel: If the Giddineſs continues, *Myrrh Pills*, with a ſmall Proportion of *Camphire*. WILSON.

Of the COLIC *of the* Damnonii, *or* Devonſhire.

THOUGH this ſeems to be a local Diſorder, yet, according to the Author's own Opinion, the Method of curing it will give an Inſight into the Cure of the *Dry Gripes*; and I will venture to add, that it will yield no ſmall Aſſiſtance to the judicious Treatment of Colics in general, eſpecially the *bilious*.

This Diſeaſe was *epidemical* in *Devonſhire* and *Cornwall* in 1724, and returns every Year, more or leſs, in the *autumnal Seaſon*.

It

It begins with *extreme Anguiſh* at the *Stomach*, and a violent Pain in the *Epigaſtrium*. The *Pulſe* is weak and unequal, the *Sweat* a little coldiſh: In the mean Time the *Tongue* is covered with a greeniſh or dark brown *Mucus*, and the *Breath* is intolerably offenſive.

This State is immediately followed with an *enormous Vomiting*, generally of Bile intenſely *green*, but ſometimes *black*, accompanied with a large Quantity of *prodigiouſly acid* and *extremely tenacious Phlegm*. Nay, the Filth thrown up was often ſo very ſharp, as to excoriate the Throat and *Fauces*, being tinged with Blood, and ſo rendered the Swallowing painful.

Theſe Symptoms continuing for a Day or two, the Body became *very coſtive*, nor could be moved by draſtic Purges, nor the ſharpeſt Clyſters; the firſt being thrown up by Vomit, and the laſt voided without Excrements, or Wind.

As the *Vomiting began to abate*, the Pain deſcended lower, violently tortured the *umbilical Region*, and cruelly affected the *Loins*, and the *Spine of the Back*, imitating a Fit of the Gravel, eſpecially as the Urine was ſuppreſſed, and as there was a continual Inclination to make Water, and alſo, as there was a Senſe of Weight in the *Perinæum*, like a Stone.

The *Urine* was like a *Lixivium*, with a red, mucous, and not ſeldom a greeniſh, copious Sediment. The *Abdomen* was generally puffed up to ſuch a Hardneſs and Tenſity, that the Patient was afraid it would burſt. But ſome had it ſo contracted with Spaſms, that the Belly loſt its uſual Form. This was ſeldom. There was often a *fixed*, *violent*, *burning Pain*, with a Tumor and Hardneſs in the right *Hypochondrium*. In the *Epigaſtric Region* there was, frequently, a great and troubleſome Pulſation.

Whenever there was a *natural* or a *forced Stool*, it conſiſted of *Scybals*, which were of a greeniſh black, round and ſmall, like *Sheeps Dung*; after two or three Dejections, they were ſometimes mixed with Blood, exciting a moſt troubleſome *Teneſmus*. If ſome Hours after a Stool was again provoked by Art, the Excrements were ſtill of the ſame Kind, that is, round, ſmooth, and exceeding hard.

This was the *firſt Face of the Diſeaſe*; but though there was a ſmall Ceſſation of the *Colic Pains*, yet the Skin was ſo tender, it would not bear to be touched. And now the Pain extended itſelf along the whole Spine of the Back, to the Tops of the Shoulders, with great Torment, eſpecially about the *Shoulder Blades*: Then it proceeded to the Arms, and chiefly afflicted the Joints, taking away the Uſe of the Hands. Nor were the Thighs and Legs in a much better Condition, for the excruci-

ating Pain ſeemed to penetrate to the very Marrow, not unlike the *Lues Venerea*, but without Redneſs or Tumor.

While the morbid Matter was making its Way from the Inteſtines to the Members, the Pulſe was ſtronger, and the Patient feveriſh, at which Time ſome grew delirious, the certain Sign of which was, the Urine being ſomewhat limpid; and if the Urine had been pale, and without Sediment, through the Courſe of the Diſeaſe, the Patient was ſuddenly ſeized with *Convulſions*, or a *Delirium*, or a Palſy of the Hands; ſometimes with, and ſometimes without Pain.

When the Diſeaſe had taken Poſſeſſion of the Joints, a plentiful, fœtid Sweat, of an acid Smell, abated the Pains, and if any thing of the Colic yet remained, it now entirely ceaſed. Some were ſo waſted with a long, profuſe Sweat, that they loſt intirely the Motion and Uſe of their Hands, the Senſe of Feeling only remaining.

Sometimes the *Sweat* was attended with the Appearance of many *red*, *itching Puſtules*, throughout the Body, which often were of a burning Nature, and very troubleſome: This was a good Omen, for then the *Colic* and Rheumatic Pains ceaſed; and this was the beſt Exit of the Diſeaſe. But it was more common for the *Rheumatiſm* and *Colic* to appear and diſappear by Turns.

Sometimes the Pains would ceaſe for ſome Days, and then return, after a ſlight Cold, or drinking Beer or Cyder. If a Jaundice appeared, the Colic would vaniſh; and when the Jaundice went off, the Colic returned. But if a real Jaundice continued, it quite terminated the Diſeaſe, except a little Uneaſineſs in the Joints.

Though the *Colic* Pains moſt commonly preceded the *Rheumatiſm*, yet it frequently ſeized the Joints firſt, from whence it was tranſlated to the Stomach and Inteſtines, as above.

A very few, who had long ſtruggled with the Diſeaſe, were ſeized with *Epileptic Fits*, and then died: And it is wonderful there were ſo few Victims to this dreadful Malady. It raged moſt when the Wind blew from the North-Eaſt. Thoſe who were naturally coſtive ſuffered moſt. As the Spring came on, it gradually diſappeared.

This Diſeaſe was owing to the prodigious Plenty of Apples that Year, which furniſhed the Inhabitants with vaſt Quantities of Cyder; this being drank new, and perhaps ſometimes unfermented, it was no Wonder ſuch Conſequences proceeded therefrom.

Bleeding was generally prejudicial, but *Vomiting* advantageous; I therefore preſcribed thus:

1. ℞. *Rad. Ipecacuanh.* ℈j. *vel* ʒſs. *Sal. Abſinth.* ℈ſs. *coq. ex Aq. Fontan.* ʒiv. *ad* ʒij. *dein coletur decoctum, cui adde Aq. Junip. comp. Syr. è Spin. Cervin. an.* ʒſs. *M. F. Potio emetica.*

To promote the Working, I let the Patient drink plentifully of Chicken-Broth, or, which I like better, an Infuſion of Sage and Chamomile Flowers. When I would have the Emetic ſtronger, I added a few Grains of Tartar Emetic, or a Spoonful or two of antimonial Wine.

This is to be repeated every other Day, ſometimes to the fourth Time, to clear the Stomach of the large Quantity of viſcid Phlegm, and to ſhake and vellicate the adjacent Parts, in order to diſlodge the ſtagnant Humours.

When the Operation is over, which by the Help of an *Opiate* is ſoon effected, we muſt proceed to *Cathartics*, which muſt always in theſe Caſes be joined to *Opiates*.

2. ℞. *Pil. ex Colocynth. cum Al.* ℈j. *vel* ʒſs. *Calomel.* ℈ſs. *Extract. Thebaic. gr.* j. *Ol. Caryophyl. gut.* j. *M. F. Pilulæ.* Or,

3. ℞. *Rad. Jalap. pulv.* ℈j. *vel* ʒſs. *Spec. Aromat. gr.* viij. *Calomel.* ℈ſs. *Syr. è Spin. Cervin. q. ſ. M. F. Bolus.*

[This is a ſafer and more ſuitable Purge:]

4. ℞. *Tartar. Vitriolat.* ʒj. *Sal. Tart.* ℈ſs. *Ol. Nuc. Moſchat. eſſent. gut.* j. *Len. Electar. q. ſ. M. F. Bolus quartâ quâque horâ ſumend. donec alvus libere dejecerit.*

Two or three Hours afterwards, I order an Infuſion of *Sena*, or a Solution of *Manna*, or ſomething of that Kind; to theſe I ſometimes add Oil of ſweet Almonds, or Sallad Oil, unleſs it is offenſive to the Stomach. I increaſe and repeat the Doſe of theſe as the Symptoms require; by theſe Means the Pain is eaſed, the Inteſtines are relaxed, and gently ſtimulated to diſcharge their Contents, as well as rendered ſlippery by the Oil.

But if theſe Things will not paſs, I order an emollient Fomentation for the whole *Abdomen*, eſpecially when the Belly is puffed up and hard, or contracted with Spaſms.

5. ℞. *Rad. Altheæ, Sem. Lin. Sem. Fænugrec. an.* ʒiij. *Flor. Chamæmel. M.* iij. *Cap. Papav. alb.* ʒiv. *Coq. ex Aq. Fontan. & Lact. dulc. an. Part. æqual. F. Fotus.*

But much happier Effects may be expected from a *Semicupium*, or Bath, of the ſame Ingredients, as every one will judge who has ſeen what extraordinary Advantages have accrued from emollient Baths in Fits of the Gravel; for I have ſeen them terminate a Paroxyſm when the uſual Methods were tried in vain.

It ſometimes happens that the Fæces are exceeding hard, and lodging in the Valves of the Colon hinder the Wind and Excrements from making their Exit; which occaſions moſt grievous Pains, eſpecially when the Inteſtines are irritated with Purges. Wherefore, after a few Hours, if the Purge does not work, I order an *oleous and emollient Clyſter*, to render the Inteſtines ſlippery, and the *Fæces* more ſoft. Afterwards, if there is Occaſion, a *ſharper Clyſter* may be given.

[6. ℞. *Vin. Canar. Ol. Lini, an.* ℥vj. *Ol. Succin.* ʒſs. *M. F. Enema.* Or,

7. ℞. *Juſcul. Carn. Vervecin. vel Vitulin. Ping.* ℥viij. *Ol. Amygd.* ℥iv. *Sacchar.* ℥j. *M. F. Enema.* Or,

8. ℞. *Lact. recent.* ℥viij. *Ol. Sambucin.* ℥iv. *Pulp. Caſſ.* ℥j. *M. F. Enema.*]

If any Diſeaſe requires *frequent Purging*, it is this, for which Reaſon, *lenitive Cathartics* are to be continued for ſome Days; ſuch as *Rhubarb*, *Pilul. Ruffi*, *Tinctura ſacra*, to which now and then may be added a few Grains of *Calomel*. *Venice* or *Cyprus Turpentine*, diſſolved in the Yolk of an Egg, and mixed with ſome *Cordial*, is a proper Purge, as well as efficacious againſt the Rheumatic Pains.

9. ℞. *Terebinth. Venet. in Vitel. Ovor.* N°. ij. *ſolut.* ℥j. *Ol. Caryophyl. gut.* ij. *Senſim admiſce Syr. Caryoph. rub.* ℥iv. *Vin. Malacenſ.* ℔ſs. *Doſis* ℥ij.

In the mean time *Anodynes* are to be given with a liberal Hand, for the exceſſive Pains are not otherwiſe to be appeaſed. As to the Doſe of an *Opiate* in this Caſe, nothing certain can be determined, for that which compoſes one Patient to ſleep, will throw another into a pleaſing *Delirium*. [Therefore it will be moſt prudent to begin with ſmall Doſes at firſt, and repeat them at proper Intervals till the deſired End is obtained: Thus,

10. ℞. *Tinctur. Thebaic. gut.* lxx. *Syr. è Mecon.* ʒvj. *Aq. Cort. Aurant. ſimp.* ℥iv. *Aq. Junip. compoſ.* ℥ij. *M. ſumat. Coch.* j. *omni ſemihora donec ſopiatur Dolor.*]

It will be likewiſe neceſſary to *dilute the ſaline Acrimony of the Blood*; for this Purpoſe Water is the beſt Diſſolvent, and eſpecially that of *Pyrmont* or *Spaw*, for theſe not only diſſolve the Salts, but reſtore the due Temperament of the Blood, and the Tone of the Fibres.

When the *Blood is diluted*, it will be convenient to promote *Sweating*, which will be beſt done by *Laudanum* and *Camphire*, and

and drinking plentifully of the hot Infuſion of *Roſemary* or *Sage*, or, if more agreeable to the Stomach, *Sack-Whey*.

Thoſe who have obſerved the ſharp, fœtid Sweats corroding the Cuticle, will not wonder that *Colic* and *Rheumatic Pains* ſhould be eaſed by *Sweating*, it being the Road pointed out by Nature.

After *Sweating*, the Chalybeate Waters are again to be repeated, not forgetting now and then a Doſe of *Rhubarb* or *Tinctura ſacra*; likewiſe *Teſtaceous Powders*, with *Salt* of *Wormwood*, but more eſpecially *Lime-Water* tinctured with *Stomachics*, which deſtroys the Acid in the Blood as well as in the *Primæ Viæ*.

When the *Rheumatic* Pains have invaded the Joints, then *Cinnabar*, *Gum Guiacum*, *Tincture of Antimony*, and *Terebinthinate Potions* are uſeful, as well as againſt *paralytic Affections*: But above all, *Calomel*, eight or ten Times ſublimated, now and then repeated in ſmall Doſes, that is, two or three Grains at a Time, is a noble Remedy againſt this and many other Diſeaſes. To the *Calomel* I often add a little *Camphire*, by which Means it penetrates into the minuteſt Canals of the Body. I have likewiſe lately experienced the Virtues of *Mercurius Alkalizatus* * in this Caſe, which is a moſt ſafe Preparation.

When there are excruciating, obſtinate, *Rheumatic Pains*, eſpecially between the *Scapulæ*, a *Bliſter* will be neceſſary, which will contribute greatly to prevent or cure the Palſy. The *Paralytic Members*, and the whole *Spina Dorſi*, are to be rubbed with the *Galbanetum Paracelſi*, or rather the *Balſamum Galbanetum* of *Hartman*. It is alſo a uſeful Remedy when the Belly is greatly extended, or contracted with Spaſms.

* I mentioned this before as an Invention of Dr. *Burton*; but I find it alſo in *Aſtruc*, under the Title of *Æthiops Alkalizatus*, or *Abſorbens*. He adds, if *Mercury* be mixed or extinguiſhed with *Balſam of Peru*, or *Capivi*, or of *Canada*, it is an *Æthiops antiphthiſicus*; if with *Gum Guaiac*. *antirheumatic* or *antiſcorbutic*; if with *Manna*, or *Reſin* of *Jalap*, it is a purgative *Æthiops*; if with *Gum* of *Juniper*, or *Sal Ammoniac*, it is *diuretic*; to which I may add, with *Plummer*, that with *Sulphur* of *Antimony*, it is excellent againſt *Defedations of the Skin*. And here it may not be improper to obſerve, that *Huxham* looks upon *Riverius* as the firſt who joined *Opiates* with *Cathartics*, in the *Colic*; whereas they were ſo given long before, as may be ſeen in *Stocker*'s *Praxis Aurea*, under the title of *Pilulæ expertæ in Colica*, where he preſcribes one Dram, or four Drams of *unwaſhed Aloes*, with a Grain or two of *Opium*, and likewiſe of *Saffron*, or *Caſtor* inſtead of *Saffron*, made into eight or nine Pills, and given on an empty Stomach: It eaſes the Pain in an Hour, and purges ſafely. To make it briſker, add two or three Grains of *Scammony*. This gained him great Reputation.

When

When the *Colic* and Rheumatic Pains have ceaſed for a while, then a more *plentiful Diet* may be uſed, more particularly *Jellies* of *Sago*, *Hartſhorn*, or *Calves Feet*, *poached Eggs*, and ſuch like, which will be uſeful through the Courſe of this Diſeaſe. But the Drink muſt be *Water*, or *Spaw-Water*, with now and then a little Wine mixt with it.

To reſtore the due Temparament of the Blood, and to ſtrengthen the *Viſcera*, I often uſe the following Infuſion:

℞. *Rad. Gentian. Galang.* an. ℥ ſs. *Zedoar. Calam. Aromat. Cort. extern. Aurant. ſicc.* an. ℥ ijſs. *Caryophil.* ʒ ij. *Chalyb. cum Tartar. ppt.* ℥ iij. *Hiſce affunde Vini albi Oliſiſpon.* ℔ iijſs. *Aq. Cort. Aurant. Spir. Aq. Sem. Cardam. Aq. Junip. comp.* an. ℔ ſs. *F. Infuſio clauſa per Dies ſaltem* xij. *in Vaſe vitreo, id ſæpè agitando.*

The laſt Aſſiſtance is *Riding*, which, by ſhaking the whole Body, promotes the Circulation of the Fluids, and eſpecially through the Meſenteric Veſſels, where the Motion of the Blood is moſt ſlow, and by that Means diſſolves the ſtagnating Humours, and opens the Obſtructions of all the *Viſcera*. Hux.

Baker ſays, the earlieſt Account of the *Devonſhire* Colic is *Muſgrave*'s, in his Book *De Arthritide Symptomatica*, which he repreſents to be the Effect of crude and ſharp Cyder, making no mention of thoſe eſſential and pathognomonic Symptoms, by which it is at this Time diſtinguiſhed. Are we to ſuppoſe, (adds this Gentleman,) that when *Muſgrave* lived, it had not been obſerved to terminate in a Palſy or Epilepſy? That he was well acquainted with a Diſeaſe very ſimilar to this, the Colic of *Poitou*, is very certain, as he mentions the Caſe of a Gentleman, who, in the Flower of Age, became Paralytic from that very Colic. Poſſibly, indeed, *Muſgrave* might not have ſeen the Colic in its extreme ill Effects, which he mentions as peculiar to drinking Cyder; Orchards were then but few in his Neighbourhood. *Huxham* ſays, that in 1739, there was ten Times more Cyder made and drunk in the Country, than for thirty or forty Years before. *Huxham*'s Deſcription of this Malady is very full; but it does not appear that he begun to make Obſervations on the Air and epidemic Diſeaſes till 1728, four Years after the remarkable epidemic Colic of *Devonſhire*.

Baker, conſidering that this Colic is preciſely the ſame Diſeaſe which is the ſpecific Effect of all ſaturnine Preparations, and that there is not the leaſt Analogy between the Juice of Apples and the Poiſon of Lead, thinks it improbable that two Cauſes, bearing ſo little Relation to one another, ſhould make ſuch ſimilar Impreſſions.

But

But Lead itſelf being certainly of ſuch a Nature, as to be abundantly anſwerable for all the ill Effects of Cyder, he was induced to the Search of it. He found, on Enquiry, that the Diſeaſe is very common all over the County, but particularly infeſts thoſe Parts where the moſt Cyders are made: That it is not only common among the lower Claſs, and thoſe who drink largely of the unfermented Juices, and the new Cyder; but that it is much more frequent among all Ranks, than in other Parts of *England*, nor intirely confined to Autumn.

Were the Apparatus for making Cyder the ſame in all the Cyder Counties, it would appear at firſt Sight very unaccountable, that the Inhabitants of one County in particular ſhould experience ſuch terrible Effects from the Liquor; whilſt thoſe of the others drink it with Impunity.

In many Parts of *Devonſhire*, the circular Trough uſed in grinding Apples, is compoſed of ſeveral Pieces of Moor-Stone, cramped together with Iron, and fixed by melted Lead, poured into the Interſtices, on the Inſide of the Groove. Sometimes theſe Stones are irregular, and do not correſpond with each other, and then the Chaſms are filled up with Lead, and the Apples come into immediate Contact with this poiſonous Metal.

It is likewiſe common, in ſeveral Parts of the County, either to line the Cyder Preſſes intirely with Lead, to keep them from leaking; or to make a Border quite round the Preſs, for receiving the Juice of the Apples, and conveying it into a Veſſel of Wood or Stone. In many other Places it is common to nail Sheet Lead over any Cracks or Joints in the Preſſes; and likewiſe to convey the Juice from the Preſſes in Leaden Pipes.

The *Herefordſhire* People are not ſubject to this Colic. There is no Lead uſed in any Part of the grinding or preſſing Apparatus. Once, indeed, in a plentiful Year of Apples, a Farmer, who wanted caſks, filled a large Leaden Ciſtern with new Cyder, and kept it there till he could procure Hogſheads, ſufficient to contain the Liquor. The Conſequence was, that all who drank of it were effected by it, as Lead-workers uſually are.

There is at this Time, or at leaſt there very lately was, on an Eſtate of his Grace the Duke of *Somerſet*, in the Pariſh of *Bury Pomeroy*, a Leaden Ciſtern of very large Capacity. During many Years the Apple Juice, as ſoon as expreſſed, was conveyed into it, and there remained till fit to be caſked. Thoſe who drank the Cyder were moſt cruelly tormented with the *Devonſhire* Colic, and many died. The Leaden Ciſtern was, therefore, no longer uſed; and, in conſequence, the Diſeaſe became leſs frequent among the Inhabitants of *Bury Pomeroy*.

Of

Of the Colic *of* Poitou, *or the* Dry Belly-Ach.

THERE is a Kind of *Colic* which degenerates into a *Palsy*, ſcarce taken Notice of by the Ancients. It is attended with a moſt violent Pain, not unlike that of the *bilious Colic*, which will neither yield to Clyſters nor Fomentations, nor the uſual Remedies, but continues ſeveral Months, whence proceeds a Waſting of the Body. There is a ſtraight Compreſſion of the Belly, a Retraction of the Navel inwards, and extreme Coſtiveneſs, ſo as to tranſmit no Flatus, and hardly admit a Clyſter. A Pain in the Loins, a violent Contraction of the *Peritonæum* and Muſcles of the *Abdomen*. Add to theſe, Coldneſs of the Extremities, trembling, ſhivering, a hard contracted Pulſe, extreme Anxiety, and a Diſpoſition to Fainting. It is ſometimes attended with a Kind of an intermitting Fever, and ſometimes with a *continual ſlow Fever*, and at length, when the Pains remit, the *Palſy* ſucceeds, the morbific Matter ſenſibly inſinuating itſelf, through the Membranes of the Abdomen, into the Spine of the Back. This *Palſy* chiefly affects the upper Parts of the Body, while the Legs and Thighs are generally full of Pain; in ſome few they become *paralytic*. Sometimes the Brain is affected, whence proceed *epileptic Fits*, which terminate in Death. Riverius.

The *nervous* or *convulſive Colic*, or *Colic* of *Poitou*, is called in *Barbadoes* the *Dry Belly-Ach*; and may juſtly be reckoned an *Endemic Diſeaſe* in the *Leeward Iſlands*. The Belly is ſeized with an intolerable piercing Pain, ſometimes in one Part only, ſometimes in ſeveral Parts of the Inteſtines; which, in a ſhort Time, extends itſelf to a greater Diſtance, whereby the Fibres of the Bowels ſeem contracted, and drawn together from the *Anus* and *Pylorus*, towards the Part primarily affected. This ſometimes continues eight, ten, or fourteen Days, keeping the Patient continually upon the Rack, with ſcarce any Remiſſion. The *Pain* afflicts with various Senſations by Turns; as *burning*, *rending*, *gnawing*, *piercing*, &c.

The *Belly* continues all this Time *obſtinately coſtive*; the Urine is little, the Strength decays, the Body waſtes, the extreme Parts are cold, and the Patient frequently falls into clammy Sweats and *Deliquia*. Add to theſe, that *Grief*, *Anger*, *Rage*, and *Deſpair*, eclipſe the *Reaſon*, pervert the *vital*, *natural*, and *animal Functions*, and the Patient ſinks under the Preſſure of theſe accumulated Afflictions.

When the Extremity of the Pain begins to abate, there is a *tingling Uneaſineſs* through the *Spinal Marrow*, which from thence proceeds to the Nerves of the Arms and Legs, now very weak and

and debilitated; which Debility increaſes daily, till it ends in a *Palſy* of the Extremities. TOWNE.

The *Cure* is to be *attempted* with *Clyſters often repeated*, and the *Primæ Viæ* opened with a *Cathartic*; after which the Patient is to be put into a warm emollient Bath, three, four, or five Times in a Day, that the Acrimony of the Humours may be mitigated, and the Pores kept open. The next Day repeat the Cathartic, the following uſe the Bath. This is to be done alternately, if the Patient's Strength will bear it, till the Pain is allayed, and he out of Danger.

In the mean while the *Clyſters* may be continued; thoſe of Milk are beſt, to which may be added *Caſſia*, and any emollient Oil; with the laſt of which the Belly may be frequently anointed. RIVERIUS.

Balſam of Peru, frequently given, in a large Doſe, is a Cure for this Diſeaſe; that is, xx, xxx, or xl Drops, in a Spoonful of the fineſt Sugar, twice or thrice in a Day. SYD.

The beſt *Method of Cure* is, firſt to give the Patient viij or x Grains of *Matthews*'s Pill, [xvi or xx Grains of the *ſaponaceous Pill* will anſwer the ſame Intention,] and about Half an Hour after, ℥ ſs. of *Manna*, ʒ ij. of *Cream Tart.* and ℥ j. of Syrup of *Roſes ſolutive* in warm Water Gruel; and this is to be repeated every three Hours, giving iv Grains of *Pill. Matth.* [viij Gr of *Pil. Sapón.*] in the Intervals.

But if the Patient, through a Propenſity to vomit, cannot retain the *Laxative Draught*, give the following Mixture:

1. ℞. *Sal. Abſinth.* ʒ j. *Extract. Thebaic. gr.* j. *vel* jſs. *Aq. Menth. vulg. Spir.* ℥ i. *Syr. Limon.* ℥ ſs. *M.*

A *Clyſter* is likewiſe to be injected every four Hours, till the Body begins to be ſoluble.

2. ℞. *Decoct. commun. pro Clyſt.* ℥ viij. *Balſ. Capivi in Vitell. Ov. ſolut.* ʒ ij. *Sapon. Amygd. Ol. Anij. an.* ʒ ij. *M. F. Enema.*

In the mean Time, *warm Fomentations* are to be applied all over the *Abdomen*, with *Flannel.*

3. ℞. *Flor. Chamemæl.* ℥ iij. *Bacc. Junip. Lauri, an.* ℥ j. *coq. in Aq. Fontan.* ℔ v. *ad* ℔ iij. *ſub Fixem addendo Sem. Carui, Fœnic. Aniſ. an.* ℥ ſs. *Colat. diſſolv. Extract. Thebaic.* ʒ j. *Spir. Sacchar.* ℔.

A *Semicupium*, or Bath, made with the Leaves of Wild Sage, Lavender, Roſemary, Chamomile, and other warm, *nervous Plants*, help to alleviate the Pain, and yield conſiderable Relief.

Car-

Carminative Sudorifics, and *Baths*, while the Patient continues coſtive, are hurtful; for by carrying the bilious and coroſive Matter into the Blood, and external Parts, they induce Contractions of the Limbs, Palſies, hectic Fevers, or epileptic Convulſions. If the Patient is old and weak, *Opiates* are to be avoided, for they will bring on a *Pareſis*, or *Palſy*, or a Mortification of the internal Parts.

When the Pains are mitigated, and the Body ſomewhat open, then the following *mercurial Cathartic:*

4. ℞. *Calomel.* ℈j. *Pil. ex. Colocynth. cum Al.* ℈j. *Balſ. Capivi q. ſ. M. F. Pil.* iv. *mane ſumend.*

Thoſe are to be repeated daily till the Pain remits, and the Body is open.

Opiates may be now laid aſide, or their Quantity leſſened; or, in their ſtead, the Patient may take two Scruples of *Balſam of Peru*, with Loaf Sugar, every ſix Hours. This is excellent in a proper Time of the Diſeaſe, and is a ſufficient Doſe.

Piſelæum Indicum, otherwiſe called *Barbadoes Tar*, is ſtill of much greater Efficacy, if the Stomach will admit of it. Two Drams muſt be given three Times a Day, till the Diſeaſe is vanquiſhed.

When the *Tingling* begins to be felt along the *Spinal Marrow*, or the *Numbneſs* or *Inability of the Limbs*, the whole Length of the *Vertebræ*, as well as the Limbs, ought to be chafed with a Mixture of this *Tar* in double diſtilled Rum, which will, if any Thing in Nature can, avert the *impending Palſy*.

When the *Palſy* is actually formed, it will then be beſt for the Patient to repair to *Bath*.

The modern *French* Phyſicians will not allow that the *Colic of Poitou* is endemial to that Place; nay, *Fernelius*, who publiſhed his *Univerſa Medicina* as long ago as the Year 1592, when he deſcribes the Colic of *Poitou*, in the Caſe of a Painter of *Anjou*, in the Year 1577, plainly ſhews, that neither he, nor any of the other Phyſicians concerned, underſtood the true Cauſe of the Diſeaſe. *Ramazzini*, who inquired accurately into the Cauſes of thoſe Diſeaſes to which various Artificers are ſubject, much wonders how it ſhould happen, that, ſince Lead furniſhes excellent Remedies for internal as well as external Purpoſes, the Potters ſhould ſuffer ſo cruelly from the Exhalation of this Metal, in doing their Work.

We find that in the Year 1487, there was a *Receſſus Imperii* promulged at *Rotenberg* in *Germany*; and in 1478, at *Friberg*; which was enacted in 1500 at *Tubingen*; and in 1577 in the ſame Place; by which Decrees it was made capital to adulterate

Wines

Wines with Litharge, or to uſe Biſmuth in the Fumigation of them, as they had been the Cauſe of inſuperable and mortal Diſeaſes. Yet, in the latter End of the laſt Century, the Vintners, in order to correct their ſour, auſtere Wines, and make them palatable, dared again to mix Litharge with them. Some threw it into their Caſks in Subſtance; others impregnated Vinegar with it, which they mixed with their Wine in certain Proportions. *Cockelius*, in the *Ephemerides Germanicæ*, deſcribes the Method and Proportion. *Brunerus* and *Vicarius* have given ſeveral curious Particulars concerning the diſcovered Adulteration, and its Effects on the human Body; and *Reiſelius* has more on the ſame Subject. The Duke of *Wirtemberg*, in 1696, again decreed it capital to mix Litharge in Wine, or even ſell it in the Shops. Yet we are informed, that in 1705, the ſame Adulteration was repeated in the Circle of *Swabia*: And it is certain, the ſame is practiſed even at this Day, both in *Germany* and *France*, in Defiance of Laws, and the Dictates of Humanity. Now, from a very remarkable Similarity of Circumſtances and Effects, may we not reaſonably ſuſpect, that the Colic of *Poitou*, and that of the Duchy of *Wirtemberg*, were produced by one and the ſame Cauſe? BAKER.

Of the ILIAC PASSION.

THE *Iliac Paſſion* is a *Pain in the ſmall Inteſtines*, apt to turn to an *Inflammation*, in which their *periſtaltic Motion* is inverted, and their Contents, and even the Excrements themſelves, are voided by the Mouth in Vomiting. Nothing will paſs downward, not ſo much as a *Flatus*. It is often attended with fatal Symptoms.

It is preceded with Coſtiveneſs, which is ſoon followed with moſt ſharp and violent Pains, with an Inflammation, Diſtention, and a Tumour of the *umbilical Region*, which feels hard to the Touch; the Body is ſo bound, that neither Wind nor Excrements can paſs downward: Soon after, the Wind firſt makes its Way upward, then comes on a *Nauſea* and a *frequent Vomiting* of a *bilious* and *pituitous Matter*: The Breathing grows difficult, and whatever is eat or drank is ſoon thrown up again; reddiſh Fæces, with a ſtinking Smell, are afterwards forced up by Vomiting; this is ſucceeded by Loſs of Strength, a preternatural Heat, a hard and contracted Pulſe, with great Thirſt; the Urine is red, and voided with Difficulty. *When the Caſe becomes deſperate*, a *Hiccup* and *Deli-*

rium appear, the *Nerves* are diſtended, the Body is all in a cold Sweat, and violent Convulſions; and Fainting Fits put an End to the Tragedy.

In ſome who have been diſſected, the Gut ſeemed to be twiſted; but moſt commonly one Part of the Gut enters into the other. This Diſeaſe may alſo proceed from a Rupture either of the *Scrotum* or the *Groin*; from Poiſons; from any Thing that ſtops up the Paſſage through the ſmall Guts, ſuch as hard, dry Food, [Walnuts*,] Cheſnuts, Sea-Biſcuits, Quinces, Pears, unripe, acerb Fruit, when eaten in large Quantities: To which drinking little, a ſedentary Life, and a melancholy Diſpoſition of Mind will greatly contribute. Theſe all tend to harden the *Fæces*. The groſs Inteſtines may alſo be plugged up with *Scybals*, eſpecially if a Perſon either thro' Shame, or for want of Conveniency, does not liſten to the Calls of Nature. I knew an Inſtance of a certain Prince who died of this Diſeaſe, whoſe *Colon* was ſtuffed with *Scybals*, amounting to twenty Pounds.

As to the *Prognoſtics*, there is Hope of Recovery, while there is no *Inflammation*, and while Clyſters are admitted into the Body, and rendered back the ſame Way; as alſo while the Pain ſhifts from one Place to another, and the Pain and Vomiting are not continual; likewiſe when the Diſeaſe proceeds from *Fæces* obſtructing the Inteſtines. The Hope is ſtill greater, if laxative Medicines begin to make their Way downward. *But if there is an Inflammation*, which is known from a Fever, the Vehemence of the Pain, a Suppreſſion of Urine, a hard and quick Pulſe, an unquenchable Thirſt, a Toſſing of the Body, and extreme Debility, with Coldneſs of the extreme Parts, the Caſe is deſperate. A ſudden Ceſſation of Pain, an abſolute Want of Strength, with a weak Pulſe, fainting Fits, and a ſtinking Breath, ſhew the Inteſtines are mortified. HOFF.

As to the Cure; firſt of all it is neceſſary to *bleed* in the Arm, and afterwards, in an Hour or two, exhibit a *powerful Clyſter*; the Smoke of Tobacco blown into the Bowels, through an inverted Pipe, I recommend as the moſt efficacious: This may be repeated after ſome Time, unleſs the Effect of the firſt renders it unneceſſary. If the Diſeaſe will not yield to this, a pretty *ſtrong Cathartic* is adviſeable; thus,

1. ℞. *Pil. ex Colocynth. ſimp.* ʒſs. *Calomel.* ℈j. *cum q. ſ. Balſ. Peruv. F. Pil.* N°. iv. *Cap. è Coch. uno Syr. Violar. nullum inſuper Liquorem ſumendo, ne minus retineantur.* Or,

* I knew a Gentleman in *Surry*, who fell into this Diſeaſe through exceſſive eating of *Walnuts*, of which he died; for nothing would paſs through him.

2. ℞.

2. ℞. *Reſin. Scam. vel, defectu ejus, Reſin. Jalap.* ℈ xij. *Calomel.* ℑj. *M. F. Pulvis. Cap. e. Coch.* j. *Lact. Vaccin. ſuperbibendo ejuſdem Lactis Cochl. unum vel alterum.*

[The following *ſaline Cathartic* is much better, and more ſafe.

3. ℞. *Tartar. Vitriolat.* ℑij. *vel* ʒſs. *Salis Tart. gr.* viij. *vel* ℑſs. *Ol. Moſchat. Chem. gut.* j. *Elect. Len. q. ſ. F. Bolus quarta quaque hora ſumendus, donec alvus liberè dejecerit.*]

If the Patient cannot retain this, let him take xxv Drops of the *Thebaic* Tincture in ʒſs. of Spirituous Cinnamon Water; and when the Vomiting and Pain remit, let the *Cathartic* be repeated; and if the Pain returns, give the Anodyne again, and repeat it every fourth or ſixth Hour till the Inteſtines are eaſy, and the *Cathartic* begins to paſs downwards. When it has done working, give the following *Hauſtus*:

4. ℞. *Aq. Cinnam. Spir.* ʒij. *Tinctur. Thebaic. gutt.* xxv. *M. F. Hauſtus.*

This is to be repeated twice or thrice a Day, till the Vomiting and Pains quite ceaſe. Afterwards it will be adviſeable to give a *Paregoric* at Bed-time, for ſeveral Nights. SYDENHAM.

After the Pain has been mitigated with *Anodynes*, a *Cataplaſm* ſhould be applied to the *Hypogaſtric Region* to ſtop the Vomiting and *Hiccup*; which may be compoſed of equal Parts of *old Venice Treacle* and expreſſed Oil of Nutmegs, with the Addition of *Oil of Mint* and *Camphire*. This done, a gentle Laxative of *Manna*, *Cream of Tartar*, and *Oil of Sweet Almonds*, may be given with a more happy Succeſs, if the Excrements had been long retained.

When there is an *Inflammation*, nothing is better than ſix or eight Grains of *purified Nitre*, and half a Grain of Camphire mixed with ſome *antiſpaſmodic Powder* *, and taken in a convenient Vehicle. Outwardly apply a Liniment of an Ounce

* *Hoffman* particularly mentions the *Pulv. epilept. Marchionis*, which he never fails to preſcribe in *ſpaſmodic Caſes*; for which Reaſon it may not be improper to ſhew how it is made.

℞. *Rad. Pæon. mar. decreſcente Luna effoſſarum* ʒſs. *Viſc. Quercin. Raſur. Ebor. Ung. Alc. Cornu Cerv. ex apicibus deſumpt. Spodii, Margarit. ppt. an* ʒj. *Coral. rub. ppt.* ʒij. *Folia Aur. pur.* No. xx. *M. F. Pulvis.* The Gold is only for Ornament.

The Doſe is from half a Scruple to half a Dram. He frequently gives it as follows, eſpecially in Hyſteric Caſes:

℞. *Pulv. Marchion.* ʒij. *Calc. Antimon.* ℑij. *Cinnab. ppt. Nitr. pur. an.* ℑſs. *Pulv. Caſtor. gr.* vi. In ſpaſmodic Caſes, thus,

℞. *Pulv. March. Calc. Antimon. Pulv. e Chel. Canc. comp. an.* ʒj. *Cinnab. nativ. ppt. Nitr. pur. an.* ʒſs. *Extract. Caſtor. Liquid. gut.* vii. *M. Doſis* ℑj. *vel* ʒſs.

of *Axungia humana*, [any other penetrating Fat will do as well,] and a Dram of *Camphire*.

But when other Things fail in the Cure of the *Iliac Paſſion*, Recourſe muſt be had to *Quickſilver*, from whence I have ſeen *ſurprizing Effects*; half a Pound, or a Pound at moſt, is ſufficient, with fat Broth, [or Oil,] and the Patient ſhould lie on his right Side, [or walk gently about the Room,] that its Deſcent may be eaſier. I have known the Vomiting ceaſe immediately after taking it. But if there is an actual Inflammation, the Uſe of *Quickſilver* ſhould be forborne; for if the Patient dies, from what Cauſe ſoever, the By-ſtanders will probably affirm the *Quickſilver* killed him.

There is no manner of Danger in the Uſe of *Opiates*, to mitigate the Pain, provided they are exhibited in the beginning, after *Bleeding*, or before there are any Signs of a Mortification.

Clyſters are generally very advantageous, for they relax the *Spaſms* of the *groſs Inteſtines*; and for this Purpoſe *warm Water with Syrup of Marſhmallows* will be ſufficient; and if the Strength will permit, they ſhould be injected every two Hours, from the firſt Day of the Attack. They likewiſe reſtrain the Inverſion of the periſtaltic Motion, and ſoften the *Fæces*. Hof.

When the *Iliac Paſſion* proceeds from an *incarcerated Hernia*, then *Bleeding* is of the greateſt Advantage. Heist. Then the *Rupture*, and the Part through which it proceeds, are to be fomented with *emollient Decoctions*, *relaxing Oils*, *Ointments*, and *Pultices*; [or with a Bladder filled with Milk or hot Water; and with Clyſters of the ſame Quality.] After which the Inteſtines are to be put back with a gentle Hand, and the Patient is to be placed with his Head downwards, and his Legs and Thighs lifted up. Some who have been held up by the Feet have met with immediate Relief. Syd. If theſe Methods fail, a *Clyſter* of the Smoke of ſtrong Tobacco, in a large Quantity, may ſo ſtimulate the Inteſtines as to cauſe them to contract and retreat into the Belly. If this will not do, Recourſe muſt be had to a ſkilful Surgeon, who by *manual Operation* may give the Patient Relief. Heister.

Of Vomiting.

VOMITING is a ſpaſmodic, retrograde Motion of the muſcular Fibres of the *Oeſophagus*, Stomach and Inteſtines, together with ſtrong Convulſions of the abdominal Muſcles and

and Diaphragm. Thoſe that are *ſlight*, create *Nauſeas*; thoſe that are *ſtrong*, Vomiting. BOER.

Vomiting is generally preceded with a *Nauſea*, a Tenſion and Weight in the Epigaſtric Region, a Bitterneſs in the Mouth, Anxieties of the *Præcordia*, [Sickneſs at the Stomach,] Plenty of thin *Saliva* in the Mouth, a Trembling of the nether Lip; to theſe may be added, a Dizzineſs of the Head, a ſudden Dimneſs of Sight, Redneſs of the Face, a fruitleſs Eructation; and then the Contents of the Stomach are diſcharged upwards.

Vomiting is cauſed by Exceſſes in Eating and Drinking; by the Acrimony of the Aliments; by the Tranſlation of the morbific Matter of Ulcers, the Gout, Eryſipelas, and other Diſeaſes to the Stomach; from a Looſeneſs or Bloody-Flux too ſuddenly ſtopped; from a Congeſtion of Blood in the Stomach, which happens to Women in the firſt Months of Pregnancy, or when there is a Suppreſſion of the Menſes, or Bleeding Piles; from Sympathy, by tickling or irritating the Throat or *Oeſophagus* with the Finger or a Feather; from the Colic, Iliac Paſſion, a Rupture, Fit of the Gravel, Worms; from Poiſons; from Hurts of the Brain, ſuch as Contuſions, Compreſſions, Wounds or Inflammations of the Diaphragm, Stomach, Inteſtines, Spleen, Liver, Kidneys, Pancreas or Meſentery; from an unuſual Motion of the Spirits in a Cart, Coach, or Ship; from the Idea of ſome nauſeous thing, or which has formerly occaſioned Sickneſs or Vomiting; from a Regurgitation of Bile into the Stomach. BOERH. HOFF.

As to the *Prognoſtics*; a *critical Vomiting* is ſalutary; a *Symptomatic* bad; and that which proceeds from a ſubtile cauſtic Acrimony, which vellicates the Nerves, worſt of all. All violent exceſſive Vomiting is bad, as it may occaſion Abortions, Ruptures, *&c.* *Bilious Vomiting*, eſpecially the green, porraceous, and æruginous, conſiſting of a *corroding Acid*, portend Danger of an Inflammation; *Vomiting from Worms* which gnaw the Stomach, is generally pernicious; *Vomiting of dead Worms*, if at the ſame time the Convulſions of the Limbs, and other grievous Symptoms ſuddenly ceaſe, ſhews a Mortification. All *fætid Vomiting* is a ſign of internal Corruption, and therefore bad. A *Sebaceous* or *Suety Vomiting*, being a Sign of an abounding coagulating Acid, denotes an intolerable *Heart-burn*. HOFF.

When *Vomiting* proceeds from a *Crapula*, late Suppers, diſturbed Digeſtion by Riding, and the like, it may be prevented by deep Inſpirations often repeated, by which the Diaphragm is made to preſs on the Stomach, and accelerate the Diſcharge of its Contents; but if an Inclination to vomit,

from the ſame Cauſes, comes on unawares, a pretty ſtrong and often repeated Friction of the Hypogaſtric Region with the Hand, will prevent it, as I have found by various Trials.

Pituitous Vomiting, from Crudities of the *Primæ Viæ*, is beſt cured by a Vomit, and eſpecially if there is a troubleſome Reaching to vomit, attended with a *Nauſea* and a *Cardialgia*; then having firſt preſcribed neutral Salts, or Squills, to incide the Phlegm, give warm Water mixed with unſalted Butter, very plentifully, or Powder of *Ipecacuanha*.

Bilious Vomiting, which proceeds from a depraved Digeſtion, and has its Seat in the *Duodenum*, is cured by Abſorbents and gentle Laxatives of *Manna* and *Rhubarb*. When it proceeds from too great a Laxity of the Biliary Ducts, then *Cortex Peruvianus*, *Cortex Eleutheriæ*, and bitter Tinctures and Chalybeates, will be moſt efficacious. If from a *Coagulum* or *Stone* in the Gall-Bladder, Mineral Waters are more likely to ſucceed.

When *Vomiting* is cauſed by a ſharp Matter vellicating the Nerves of the Stomach, proceeding from the *Gout*, or an *Eryſipelas*, beſides giving *quieting Medicines*, it ought to be drove back by *Diaphoretic Powders*, with a ſmall Addition of *Camphire*. Alſo externally, *Frictions*, *Pediluvia*, and Clyſters, are uſeful.

When it proceeds from *Poiſons*, nothing is better at the Beginning than drinking large Quantities of Milk, and fat oily Things, to ſheath their Acrimony, and bring them up by Vomiting.

Vomiting from a Suppreſſion of the *Menſes*, or from the Stoppage of the *Bleeding Piles*, is cured by *Abſorbents*, by *gentle Laxatives*, by *Clyſters* and *Strengtheners*; and more eſpecially by *Bleeding*, or cauſing the Flux to return. *Emetics, in this Caſe, are as bad as Poiſon*, and either cauſe a *Vomiting of Blood*, or a *fatal Inflammation of the Stomach*.

Morning Reachings, cauſed by *hard Drinking*, are cured by *Abſorbents* and Antiacids, and by ſtrengthening the digeſtive Faculty, by Bitters, candied Orange Peel, *&c.* [Or,

1. ℞. *Cort. Aurant. ſicc.* ʒj. *Rad. Gentian.* ℥ij. *Sem. Cardamom. minor. Zedoar. an.* ʒi. *Caryoph. Croc. an.* ℈i. *Coccinel. gr.* x. *Spir. Vin. Gal.* ℔j. *F. Tinctura, Cap. gut.* lxxx, c, *vel* cxx, *e quovis Vehiculo.*]

The immoderate and frequent *Vomiting of pregnant Women* requires repeated Bleeding in the Foot, and Reſt both of Mind and Body. I have done more good in this Caſe with cold, pure Spring-Water, where there was Danger of Abortion, than by

by any other Method. When there is need of an *Analeptic*, a Spoonful of Cinnamon Water with a little Marmalade of Quinces is ſufficient. HOFF.

Of a dangerous AFFECTION *of the* OESOPHAGUS.

THIS Caſe (ſays Dr. *Munckley*) is one of the moſt deplorable Diſeaſes to which the human Body is ſubject. Its Beginning is in general ſo ſlight, as to be ſcarce worth Notice; the Patients perceiving only a ſmall Impediment to the Swallowing of ſolid Food: They uſually continue in this State for many Months, during which all liquid Foods, and even Solids themſelves, when cut ſmall and ſwallowed leiſurely, are got down without much Difficulty; By Degrees the Evil increaſes, and the Paſſage through the *Oeſophagus* becomes ſo narrow, that not the ſmalleſt Solid whatever can paſs through it; but, after having been detained for ſome time at the Part where the Obſtacle is formed, is returned again with *a hollow Noiſe of a very peculiar Kind*, and with the *Appearance of Convulſion*.

The Seat of this Malady is ſometimes near the Top of the *Oeſophagus*, and at other Times farther down, nearer the ſuperior Orifice of the Stomach. In this laſt Caſe, the Part of the alimentary Tube which is above the Obſtruction, is frequently ſo dilated by the Food, which is detained in it, as to be capable of containing a large Quantity; and the kind of Vomiting, by which it is again returned through the Mouth, comes on ſooner or later after the Attempt to ſwallow, in Proportion to the Nearneſs or Remoteneſs of the Part affected. In the laſt Stage of this Diſeaſe, not even Liquids themſelves can be ſwallowed, ſo as to paſs into the Stomach, and the Patient dies literally *ſtarved to Death*.

On the Diſſection of ſuch as have died in this Manner, the *Oeſophagus* is found to be *conſiderably thickened*; and, in ſome, *ſo contracted within at the diſeaſed Part, as ſcarcely to admit the paſſing of a common Probe*; in others, *to adhere together, in ſuch a Manner, as intirely to cloſe up the Paſſage, and not to be ſeparated without great Difficulty*.

He comes next to ſhew what he has found to be the moſt efficacious Method of treating this Diſeaſe, which, though not uncommon, yet in general has been conſidered as incurable.

He claims not the Merit of having diſcovered the Method of Cure, but hopes that ſome Service may ariſe from publiſhing what his Experience has confirmed to him; having firſt received the Hint from another eminent Phyſician.

The only Medicine, then, from the Uſe of which he has ever found any Service, is *Mercury*; and in *Caſes which are recent*, and where the *Symptoms have not riſen to any great Height*, ſmall Doſes of *Mercury*, given every Night, and prevented, by purgative Medicines, from affecting the Mouth, have accompliſhed the Cure.

But where the Complaint has been of long ſtanding, and the Symptom has come on, of *the Food's being returned through the Mouth*, a more powerful Method of Treatment becomes neceſſary. In this Caſe he has never found any thing of the leaſt Avail in removing any of the Symptoms, but *Mercury*, uſed in ſuch a Manner as to *raiſe a gentle, but conſtant Spitting*: and this Method he has purſued with the happieſt Succeſs. If this Method be commenced before the Complaint has gained too much ground upon the Conſtitution, the Caſe is not to be deſpaired of; and of thoſe who have come under his Care, in this State, by much the greater Part have received conſiderable Benefit from it, and many entirely cured.

The Complaint itſelf, he obſerves, is not very uncommon; but there is no Inſtance, to his Knowledge, recorded, of Succeſs from any other Manner of treating it, than that he has recommended.

Of Vomiting Blood.

Vomiting of Blood is generally preceded with a tenſive, pricking Pain in the left *Hypochondrium*; and the Eruption itſelf is almoſt always attended with *Anxiety of the Præcordia*, and a compreſſing Pain, as alſo a Kind of a Girding on the ſame Side. It is frequently attended with fainting Fits, eſpecially if the Blood has an ill Smell, or is corrupted.

The *Seat* of this Diſeaſe is in the *Stomach*, though the *Spleen* ſometimes has a Share in its Production.

Perſons more ſubject to it are the lean and ſlender; Women irregular in their Menſes, and who have been haſtily cured of intermitting Fevers, which has brought on a Suppreſſion of the Menſes, and then have taken hot, forcing Emmenagogues; as alſo Women about the Time that their Menſes leave them; likewiſe plethoric Women in the Time of Pregnancy, and

and hard Labour. Men of a weak Conſtitution are ſubject to the Bleeding Piles, which either ceaſe to flow, or flow in too ſmall a Quantity.

The *Danger* which attends this Diſeaſe, is not the ſame in all, though no Hæmorrhage is more dangerous than this. If there is no Fever, and if it proceeds from ſuppreſſed Evacuations, cauſed by a *Plethora*, the Caſe is not ſo deſperate. On the contrary, if there is a Fever; if the Blood is corrupted, ſtinking, and black; if it proceeds from a large, diſeaſed Spleen, or an indurated Liver, attended with Swooning, there is no Hope of Recovery left, for Death is at hand. It is ſtill worſe, if worſe can be, when the Stools are black; then the Seat of the Diſeaſe is in the *Ilium*, from a Rupture of the *Meſaraic Veſſels*.

In the Paroxyſm, if the Patient is plethoric, *bleed* according to his Age and Strength.

When there is an Orgaſm in the Blood, and the Pulſe is impetuous and ſtrong,

℞. *Aq. Fontan.* ℔j. *Nitr. pur.* ʒj. *Syr. Papav. errat.* ℥ſs. *M.*

This, taken ſucceſſively and temperately, will be very efficacious in perfecting a Cure.

When the *Region* of the *Præcordia*, eſpecially on the left Side, is afflicted with pricking and vellicating Pains, and ſpaſmodic Strictures, together with Heat and Thirſt, Emulſions will be proper. Theſe muſt be made with the four cold Seeds, and white Poppy-Seed, to which muſt be added, a little *Nitre*, and a proper Quantity of *Diacodium*.

Likewiſe, in order to relax the *ſpaſmodic Strictures of the Inteſtines*, and to divert the Flux of the Humours from the Part affected, *emollient Clyſters*, frequently injected, will be proper, with a gentle *Stimulus*, and the Addition of *Nitre*.

Outwardly to relax the Spaſms and ſtrengthen the Stomach, I have found nothing better than what I call the *Oil of Camphire*, which is made by diſſolving a Dram of *Camphire* in an Ounce of *Oil of Sweet Almonds*, and then by adding twenty Drops of *Oil of Rhodium*. Let the Region of the *Præcordia* and the *left Hypochondrium* be anointed with this Oil; and afterwards lay a Bag on the Part affected, filled with Camomile and Elder Flowers, with Mint and Wormwood, boiled in Vinegar of Roſes or red Wine, pretty hot.

If Blood is thrown up in great Quantity, with Loſs of Strength, Ligatures made upon the Joints may be ſerviceable, as alſo putting the Legs and Arms in cold Water.

When

When the Paroxyſm is off, half a Dram of *choice Rhubarb* will be highly beneficial, either with or without teſtaceous Powders; or twelve Grains of *compound Powder of Amber*, with half a Grain of Camphire taken twice a Week, at Night going to Bed, in a Draught of Spring Water. *Rhubarb* is a kind of a Specific in opening Obſtructions. The Patient, inſtead of Tea, may drink a Decoction of Yarrow, Liquorice, and Fennel-Seeds. The common Drink may be Spring Water, in which Iron has been quenched, or acidulated Whey. [I have known *Buttermilk* do Wonders in this Caſe.]

If this Diſeaſe proceeds from a Suppreſſion of the Menſes; bleed in the Foot, and give Clyſters prepared of Mugwort, Pennyroyal, Wall-Flowers, Bay and Juniper Berries, pretty frequently. Or the Patient may take Infuſions or Decoctions of *temperate Emmenagogues*.

If it is cauſed by *ſharp, acid Liquors*, corroding the Veſſels of the Stomach, then teſtaceous, alkaline Powders are proper; and Starch boiled in Milk will heal the Veſſels.

Opiates muſt be ſhunned in theſe Caſes, becauſe they bring on great Weakneſs and Loſs of Strength, to the great Detriment of the Patient. Likewiſe all *Styptics*, *Aſtringents*, and *vitriolic* Medicines muſt be ſtudiouſly avoided; theſe, indeed, will ſtop the Eruption of Blood, but then it will ſtagnate and putrify in the Veſſels, with Danger of an Inflammation and Mortification, or at leaſt, if the Patient is cachectic, it will haſten a Dropſy.

[Moſt Authors recommend *ſtyptic Medicines*, which however ought never to be made uſe of, but when nothing elſe will do. *Mead*'s Styptic may be given as ſafely as any; melt three Drams of *Alum* over the Fire, with one Dram of *Dragons Blood*, and give a Scruple of it in Powder mixed with Conſerve of Roſes; drinking four or five Spoonfuls of the Tincture of Roſes after it, which may be repeated every three Hours, if Neceſſity requires. *Shaw*, in deſperate Caſes, ventures to preſcribe *Saccharum Saturni* with other Aſtringents; thus,

2. ℞. *Maſtich. Reſin. flav. Alum. crud. Terr. Japon. Sal. Prunel. an.* ʒiſs. *Sacchar. Saturn.* ℈ij. *Electar. è Scord.* ʒj. *Diacod. q. ſ. F. Electarium de quo cap. quant. N. Moſchat. tertiâ vel quartâ quâque horâ, ſuperbibendo Julap. ſequent. Cochlear.* iv.

3. ℞. *Gum. Arab.* ʒj. *ſolve in Aq. Fontan.* ʒviij. *& adde Coral. rub. ppt.* ʒiij. *Syr. è Papav. errat.* ʒiſs. *M. F. Julap. & hujus Cochlearibus aliquot ſumat pro re nata, Tinctur. Thebaic. gut.* x *vel* xv.

Pitcairn

Pitcairn lays great Streſs upon the following:

4. ℞. *Succ. Millefol. depurat.* ℥iv. *Aq. Cinnamon. ſimp.* ℥ij. *Extract. Thebaic. gr.* iij. *Lap. Hæmitat. gr.* xxv. *Coral. rub. ppt.* ℈j. *Syr. Papav. errat.* ℥j. *M. Capiat. cochleatim.*]

When the *Vomiting of Blood ceaſes*, the Patient muſt abſtain from *Emetics*, *Aloetics*, oily, fat, and ſweet Subſtances, for theſe laſt relax the lacerated Veſſels too much. HOFF.

Of a DIARRHOEA, *or* LOOSENESS.

A *Diarrhœa* is a frequent and copious Evacuation of liquid Excrements by Stool; and may proceed from Aliments, or Humours of various Kinds, derived from different Parts into the Inteſtines.

The *Cauſe* is a *Stimulus* which irritates the *Viſcera*, occaſioning the Expulſion of their Fluids, and may therefore proceed from the Veſſels of the Liver, Pancreas, Meſentery, and Inteſtines; when at the ſame Time the Mouths of the Meſenteric Veins and the Lacteals are obſtructed. Or there may be an extraordinary Laxity of the Inteſtinal Fibres; or, laſtly, it may ariſe from a Stoppage of other Excretions. BOER. It is frequently attended with *Gripings*. The Patient is weak, makes but little Urine, has a depreſſed Pulſe, a depraved Appetite, and is ſometimes feveriſh.

In a *Diarrhœa* ariſing from ſharp, fermenting Juices in the *Primæ Viæ*, which accelerate the periſtaltic Motion of the Inteſtines, the firſt Indication is to diſcharge the ſtimulating Matter, which may be effected by a Doſe or two of *Rhubarb*, in the following Manner:

1. ℞. *Rhei elect.* ℥ſs. *Cinnam. pulv. gr.* xii. *M. cap. Mane cum Regimine in aliquo Vehiculo convenienti.* Or,

2. ℞. *Tinct. Rhubarb. Vinoſ. Coch.* iv. *Syr. Roſar. Solut.* ℥j. *M. F. Hauſtus.*

At Night the Patient may take fifteen Drops of the Thebaic Tincture, in two or three Spoonfuls of *Aq. Cinnamon. ſimp.* The *Rhubarb* is to be repeated till the Looſeneſs abates, which is generally after the ſecond Doſe.

If there is a *Saburra* of ill-concocted Matter in the *Stomach*, a Vomit will be neceſſary of *Ipecacuanha*, [or an Ounce of its Wine,] and then to ſtrengthen its Tone, order as follows;

3. ℞. *Rad. Serpent. Virgin.* ℥ij. *Gentian.* ℥ſs. *Cort. Aurant.* ℥j.

℥j. *Cort. Winteran. Galang. an.* ʒi. *Coque in Vin. Maderenſ.* ℔iij. *Cap. Coch.* v. *vel* vj. *bis aut ter in die.*

If the *Diarrhœa* continues to be violent, it will be proper to mix Aſtringents with the *Rhubarb.*

4. ℞. *Rhei pulv.* ʒſs. *cum. q. ſ. Electar. e Scordio. M. F. Bolus, addendo Ol. Cinnam. gut.* ij. [*Sydenham* preſcribes this at the Beginning of this Diſeaſe.]

If the *Diarrhœa* proceeds from ſuppreſſed Perſpiration, and if the Stools are thin, and the Patient feveriſh, firſt *bleed*, then give an *Emetic*, afterwards a *Purge of Rhubarb*, and laſt of all Aſtringents. Towne. [Thus,

5. ℞. *Electar. è Scord.* ʒſs. *Bol. Armen. Terr. Japon. Sang. Dracon. an.* ℈ſs. *Ol. Cinnam. gut.* j. *Syr. Cydon. q. ſ. M. F. Bolus, quartâ vel ſextâ quâque horâ ſumendus, ſuperbibendo Julap. ſequent. coch.* iv.

6. ℞. *Aq. Menth. vulg. ſimp. Cinnam. ſimp. an.* ℥iv. *Aq. Nuc. Moſchat. Sem. Cardamom. an.* ℥iſs. *Syr. è Cortic. Aur.* ℥j. *Spir. Lavendul. comp.* ʒiij. *M. F. Julapium.* Alſo,

7. ℞. *Tinctur. Japon.* ʒij. *Spir. Lavend. comp.* ʒj. *Cap. gut.* xxx *ad libitum è quovis Liquore idoneo.*

But the beſt and ſafeſt Aſtringent of all is *Logwood*, given in Decoction thus:

8. ℞. *Raſur. Lign. Campechenſ.* ℥iij. *Aq. Fontan.* ℔iv. *Coque ad* ℔ij. *et ſub Finem add. Cinnamon.* ℥ij. *Cola. Capiat cyatham omni bihorio vel* ℥iv. *quater in die.*

A *bilious Diarrhœa* ought not to be too ſuddenly ſtopped, but the Humours are to be corrected gradually; for which Purpoſe, a Scruple of *Rhubarb*, ſlightly toaſted, with a few Grains of *Nitre*, is very uſeful. Likewiſe half a Dram of the *expreſſed Oil of Nutmegs*, either alone, or mixed with a Grain of *Opium*, and given in Broth, is very efficacious. The Humours are likewiſe corrected with thin Emulſions of *Almonds*, and *white Poppy Seeds*, with the Addition of *Diacodium.*

When a *Diarrhœa* is very obſtinate, after toaſted *Rhubarb* has been given for ſome Days, preſcribe a Sweat with a Dram of new *Venice Treacle*, and twelve Grains of *burnt Hartſhorn*, *Calx Antimon.* and *purified Nitre.* Hoff. Or,

9. ℞. *Theriac. Androm.* ʒſs. *Catechu* ℈j. *Extract. Thebaic. gr.* j. *Diacod. q. ſ. M. F. Bolus.* Or,

10. ℞. *Electar. e Scord.* ʒj. *Rad. Serpent. Virg. Croci. an. gr.* vi. *Extract. Thebaic. gr.* i. *Diacod. q. ſ. M. F. Bolus.*

External

External Applications applied to the Belly are alſo beneficial, as I have found by Experience.

11. ℞. *Spir. Vin. camphorat.* ℥iv. *Ther. Androm.* ℥ij. *Ol. Caryoph. gut.* xx. *Ol. Aniſ. Menth. an. gutt.* vi. *M. F. Epithema.*

The Patient's common Drink may be *Decoct. alb.* with Solution of *Gum Arabic*; Rice boiled in Water, with a little Cinnamon; or a Decoction of the *Cort. Granat.* Theſe may be made palatable with Syrup of Orange-peel.

Clyſters are likewiſe often ſerviceable:

12. ℞. *Elect. è Scord.* ℥ſs. *Theriac. Androm.* ℥ij. *Coq. in Lact. Vaccin q. ſ. Colatur.* ℥vij. *injiciantur, repet. pro re nata.* TOWNE.

An obſtinate *Diarrhœa* is to be cured by a Courſe of Vomits of *Ipecacuanha.* ETMULL. An habitual Diarrhœa is greatly relieved by wearing a Flannel Shirt, and keeping the Body warm. WAINWRIGHT.

In Vol. I. of the *London Medical Obſervations and Inquiries*, Dr. *Pye* proves, by a long Enumeration of Inſtances, that in all Looſeneſſes where Emetics are adviſable, in every Age and Sex, though the Patient be in the weakeſt Circumſtances, *Ipecacuanha*, from half a Grain, to four or ſix Grains, may be given with the utmoſt Safety, and will ſeldom fail of anſwering the Intention of the Preſcriber; and adds, that for many Years he had experienced the great Efficacy of it, in curing, or aſſiſting in the Cure of *Diarrhœas* in Children, when adminiſtred in Clyſters; thus for watery Stools in a Child of ſix Weeks old,

13. ℞. *Decoct. alb.* ℥ij. *Rad. Ipecacuanh. pulv. gr.* viii. *Confect. Democrat.* ℥ſs. *f. Enem. ter in die injiciend.*

For a Child of four or five Years old:

14. ℞. *Amyli* ℥j. *in Aq. Cinnam. ſimp.* ℥iv. *cui adde Conf. Democrat.* ℥ſs. *Rad. Ipecacuanh. pulv. gr.* viii. *f. Enem.*

Of the CHOLERA MORBUS, *or* Vomiting *and* Looſeneſs.

A *Cholera*, or *Vomiting* and *Looſeneſs*, is a ſudden, violent Purging upwards and downwards, proceeding from a convulſive Contraction of the Stomach and Inteſtines, cauſed by ſharp, cauſtic Matter, of various Kinds. HOFF.

It

It generally begins in *Auguſt*, and ſeldom reaches the firſt Week of *September*, unleſs it be a ſpurious Kind, which ariſes from Exceſs; for though this is cured in the ſame Manner, yet it is a Diſeaſe of another Claſs.

It diſcovers itſelf by *enormous Vomiting*, and a voiding of vitiated Humours by Stool, with great Trouble and Difficulty. There is a violent Pain, Inflation, and Diſtention of the Belly and Inteſtines, as alſo a *Cardialgia* and Thirſt; the Pulſe is quick and frequent, ſmall and unequal; there are Heat and Anxiety; a moſt troubleſome *Nauſea*; Sweating; a Contraction of the Legs and Arms; Fainting; Coldneſs of the extreme Parts, and the like; which kill the Patient in twenty-four Hours. SYD.

Though this Diſeaſe is generally preceded with acid, nidorous Belchings, pungent and cardialgic Pains in the Stomach and Inteſtines; yet ſoon after, all of a ſudden, and at the ſame Inſtant, the Vomiting and Looſeneſs make their Attack. The Remains of the laſt Meal are voided firſt; afterwards *bilious Humours*, mixed more or leſs with *Mucus*; then thoſe that are *yellow*, then *æruginous*, then *black*; often exceeding *acid*, and almoſt *corroſive*, together with frequent Eructations and Wind, and ſometimes Blood itſelf. The Returns of the Evacuations are very frequent. Beſides, there are moſt acute, wringing, griping, gnawing, biting Pains, with Inflation and Rumbling of the Inteſtines, chiefly above the Navel, and moſt racking Cardialgias. As the Diſeaſe increaſes, the Thirſt becomes great; the extreme Parts grow cold; there is a Palpitation of the Heart, and then Hiccups; the Urine ſtops, and the Body is covered with a cold Sweat. It is common for the Patient to ſwoon away, and to fall into terrible Convulſions.

There is no Diſeaſe, except the *Plague* and *peſtilential Fevers*, that kills ſooner than this, eſpecially if it attacks old Perſons, or Children, or ſuch as are weakened with Diſeaſes. The more cauſtic the Matter is which is voided, the more intenſe are the Thirſt and Heat, and the more certain the Danger. If it be *black Bile*, and mixed with *black Blood*, Death is inevitable. The Caſe is as bad when there are Faintings, Hiccups, Convulſions, Coldneſs of the extreme Parts, and cold Sweats. Nor is any Thing better to be expected from a Stoppage of the Evacuations, while the reſt of the Symptoms continue. But if the Vomiting ceaſes, and the Patient ſleeps ſoon after, or the Diſeaſe is protracted beyond the ſeventh Day, the Patient may recover. If he begins to break Wind downwards, it is a good Sign.

This

This Diſeaſe requires the moſt *ſpeedy Aſſiſtance*, and therefore the Phyſician cannot be called too ſoon. The Indications of Cure, are, 1. To correct and ſheath the morbific Matter, and to fit it for Evacuation. 2. To appeaſe the irregular ſpaſmodic Motions. 3. To ſtrengthen the nervous Parts which the Diſeaſe has weakened. HOFF.

Boil a large Chicken in three Gallons of Water, that ſo there may be ſcarce any Taſte of the Fleſh, and give the Patient a large Quantity of it to drink; or, for want of it, warm Poſſet Drink; and alſo repeated Clyſters of the ſame Liquor; now and then an Ounce of Syrup of Violets may be added to the Draught or Clyſter. Theſe Operations may be compleated in three or four Hours, and then a Paregoric will crown the whole.

But if the Phyſician is not called in Time, and the Patient has been exhauſted with Vomiting and Purging for many Hours, and the extreme Parts begin to grow cold, then immediate Recourſe muſt be had to *liquid Laudanum* in a larger Doſe; thus:

1. ℞. *Tinctur. Thebaic. gut* xxv. *Aq. Cinnamom. Spir.* ℥j. *M.*

And when the Symptoms ceaſe, it is to be repeated Morning and Evening, till the Patient's Strength returns. SYD.

Neither *Cathartics* nor *Emetics*, properly ſpeaking, are of Uſe in this Diſeaſe, but the Vomiting may be promoted by drinking a large Quantity of warm Water, mixed with freſh Butter or Oil, and the Purging by oily and emollient Clyſters. Or the Patient may drink ſmall Chicken Broth. Whey is of great Uſe to quench the Thirſt; to which may be added, the abſorbent and teſtaceous Powders. HOFF.

If the Patient is not too much exhauſted, I make him drink plentifully of warm Water three or four Times, to dilute and blunt the Acrimony of the Humours, and to bring them up by Vomit: Then he muſt take as freely of a *Decoction of Oat Bread*, baked without Leaven or Yeaſt, carefully toaſted, without burning, as *brown as Coffee*; which Decoction ought to be of the Colour of weak Coffee. This is grateful to the Stomach, and I do not remember that any ever brought it up again. I always have uſed *Oat Bread*, but Wheat Bread or Oatmeal well toaſted may do.

When the Patient is much exhauſted with Evacuations upwards and downwards, I give him a large Draught of the Decoction; and, when the *Nauſea* is pretty well ſettled, I order two-thirds of a Grain of Opium, more or leſs, according to the Strength and Age of the Patient.

But

But if the Patient is convulſed, the extreme Parts cold, and the Pulſe weak and intermitting, *twenty-five Drops of* Liquid Laudanum, *in an Ounce of ſtrong Cinnamon Water*, is more proper; and afterwards a Draught of any Wine in an equal Quantity of the Decoction. After this, he may take the Decoction to quench his Thirſt, and a little Wine now and then as a Cordial.

To prevent a Relapſe, repeat the Opiate in a moderate Quantity for ſome Days, Morning and Evening; and Care muſt be taken not to overload the Stomach, or to eat any thing but what is of good Nouriſhment, eaſy to digeſt, and grateful to the Stomach.

The above Preſcription is to be uſed when the Patient is quite exhauſted, but in ordinary Caſes the Decoction itſelf may be truſted to. DOUGLAS. *Med. Eſſays.*

Of the DYSENTERY, *or* BLOODY-FLUX.

A *Dyſentery* begins with *Shivering* and *Shaking*, ſucceeded by *Heat* of the whole Body, which are followed by Griping of the Guts, and ſoon after by frequent voiding of ſlimy Stools, (with now and then one of the natural Kind,) attended with violent Pain, and a moſt troubleſome preſſing down or ſeeming Deſcent of all the Bowels, and this every Time the Patient has a Stool. In Proceſs of Time, the Stools are mixt with Blood, and afterwards pure Blood is only evacuated, and the Inteſtines are affected with an incurable Gangrene. Yet ſometimes there has been no Blood through the whole Progreſs of the Diſeaſe.

If the Patient is in the Flower of his Age, or has been heated with Cordials, he is very feveriſh, his Tongue is whitiſh, and beſet with a thick Mucus; ſometimes it is black and dry; he becomes exceſſively weak, and is quite deſtitute of Spirits; *Aphthæ*, or a Thruſh, appear in his Mouth and Throat, eſpecially if the Evacuation of the morbific Matter has been prepoſterouſly prevented by Aſtringents, and the *Fomes* of the Diſeaſe has not been expelled by Cathartics. Sometimes, when a Fever is abſent, the Gripes lead the Van, and the reſt of the Symptoms follow after. SYD.

Before this Diſeaſe appears in its full Force, the Patient feels a Laſſitude of the Body, his Belly becomes tumid, and he complains of troubleſome Commotions therein. It generally begins with Coldneſs and Shivering, then Heat, a quick Pulſe and

and intenſe Thirſt. The painful Gripes either precede or immediately ſucceed the febrile Shivering. The Stools firſt conſiſt of the inteſtinal Fæces, and Crudities and mucous Humours; ſoon after they are greaſy, and almoſt intirely oleaginous; and laſt of all, they are frothy, mixed with Blood, or an *ulcerous Sanies*, as alſo with Pellicles and Filaments.

Thoſe, whoſe Stomachs are loaded with much indigeſted Matter, are troubled with a *Nauſea*, Reachings and Vomiting; many have an intolerable Heartburn and Anxiety of the *Præcordia*. All are afflicted with a perpetual Deſire of going to Stool, and ſuch a violent *Teneſmus* as is not ſeldom attended with a *Procidentia Ani*.

In ſome, the extreme Parts are cold, while the inward ſeem to burn, and a perpetual Senſe of Heat and a Pulſation torture the Inteſtines. To theſe ſucceed Hiccups, cold Sweats, a pale Countenance, waſting of the Body, Inflammations, and *Aphthæ* of the *Fauces*. At laſt, all Pain ceaſes at once, the Thirſt vaniſhes, the Stools come away inſenſibly with a cadaverous Stench, the Pulſe becomes ſlender, and Death is at hand. This Diſeaſe is often contagious.

Prognoſtics. Dyſenteries are dangerous to *pregnant Women*, to *old Men* and *Boys*. There is commonly little Hope when it attacks the *Scorbutic*, the *Conſumptive*, and the *Cachectic*; thoſe that are weak and afflicted in Mind, or troubled with Worms. When it begins with *Vomiting*, ſucceeded with Hiccups, there is Danger of an Inflammation of the Stomach. Nor is the Caſe better when the Stools are green, black, mixed with Caruncles, and of a noiſome Stench. It is a fatal Omen when Clyſters are immediately returned, or the *Anus* ſo obſtinately cloſed that nothing can be injected, for it is a Sign of a Palſy of the *Rectum*. When the Pulſe is weak, the extreme Parts cold, and the inward burn, or are without Senſe, nothing good can be expected. When Swallowing is attended with a murmuring Noiſe, it ſhews the Approach of a *Delirium*, an *Inflammation* of the *Fauces*, *Aphthæ*, or a Palſy of the whole *Oeſophagus*. It is neceſſary to know, that this Diſeaſe ſometimes quickly terminates, eſpecially if there be a malignant Fever, and then it kills in ſeven, nine, or fourteen Days; ſometimes it does not ceaſe till the fortieth or upwards; when it continues a long while, it either kills the Patient, or brings on a Dropy, a Lientery, the Cœliac Paſſion, a Tabes or Hectic, which are incurable. Hoff.

[*The common Method of curing a Dyſentery*, is firſt to *bleed*, then to *vomit* with *Ipecacuanha*, afterwards to purge with *Rhubarb*, and laſt of all to give Aſtringents. *Hoffman* directs a

Scruple or half a Dram of the *Ipecac.* with a *teſtaceous Powder*, drinking a large Quantity of warm Water after it. This Vomit is ſometimes to be repeated. It is the modern Practice, after the firſt Vomit, to give two or three Grains of *Ipecac.* every eight or ten Hours, in a Bolus, with *Diaſcordium*, or the like, with ſome proper Julep. *Hoffman* would have the *Rhubarb* given in Subſtance, that is, half a Dram in Powder; *Dener* gives it twelve Hours after the Vomit, repeating it in ſmall Doſes. *Towne* recommends the following, as the beſt *Aſtringent*, after the ſaid Evacuations:

1. ℞. *Conſerv. Roſ. rub.* ℥iſs. *Sperm. Ceti* ʒj. *Ceræ flav.* ʒiij. *Ol. Amygd. dulc.* ℥ſs. *Syr. è Cort. Aurant. q. ſ. ut F. Electarium pro re nata uſurpand.*

When the Bowels are excoriated, he adviſes the following *Clyſter*:

2. ℞. *Juſcul. ex Capit. Ovin.* ℥x. *Vitel. Ov.* N°. ij. *Balſam. Locatel.* ʒj. *Electar. è Scord.* ℥ſs. *M. F. Enema.*

Sydenham, after Bleeding, preſcribes a *Paregoric* at Night, and the next Morning a *Cathartic*, thus:

3. ℞. *Tamarind.* ℥ſs. *Fol. Sen.* ʒij. *Rhei* ʒiſs. *Coq. in q. ſ. Aquæ, Colatur.* ℥iij. *Diſſolv. Mannæ & Syr. Roſ. Solut. an.* ʒj. *M. F. Potio.*

This to be repeated twice more; and as ſoon as the Operation of each is over, a *Paregoric* is to be directed; but on the Days wherein Purging is omitted, it is to be given Morning and Night. When the Patient is faint he allows four or five Spoonfuls of a temperate Julep for a Cordial, and for common Drink boiled Milk with three Parts Water, or the *white Decoction*, thus:

4. ℞. *C. C. calcinat. & Mic. Panis alb. an.* ℥ij. *Coq. in Aq. Fontan.* ℔iij. *ad* ℔ii. *poſtea q. ſ. Sacchar. albiſſ. edulcoretur.*

Or if Loſs of Strength requires it, half a Pint of Sack may be boiled with a Quart of Water, which may be drank cold. After the third Purge, the Cure is to be perfected with *Laudanum* taken twice or thrice in a Day, and a Clyſter of half a Pint of Milk and half an Ounce of *Venice* Treacle, which is to be injected now and then.

When *Bleeding*, *Vomiting*, and *Rhubarb* have proved ineffectual, ſome Phyſicians have preſcribed the following *Bolus*:

5. ℞. *Philon. Londinenſ.* ʒſs. *Rhabar. Pulv.* ℈ſs. *Syr. Caryophil. q. ſ. M. Bolus.*

As

As alſo the following Clyſter, which in my Opinion is preferable to that of *Sydenham*'s:

6. ℞. *Amyl.* ʒſs. *ſolve coquendo in Aq. Fontan.* ʒvj. *& adde Theriac. Androm.* ʒij. *M. F. Enema ſtatim poſt Sedem injiciendum.*

Mr. *Ray*, from the Information of *Aubery*, ſays, that the fungous Subſtance between the Lobes of a Walnut, dried and powdered, and given in a moderate Quantity in Wine, cured the *Engliſh* Army of a *terrible Dyſentery* in *Ireland*, when all other Remedies failed. He adds, that others have recommended it as a Cure for a *Pleuriſy*, by giving a Dram of it two or three Times.

Juſſieu ſays, a thick yellow Bark, called *Simaruba*, has been found ſucceſsful in the Cure of a *Dyſentery*. The Doſe is a third Part of a Quart of a Decoction made with two Drams of the Bark. And *Cramer* aſſures us, we may depend upon the ſame Effect from the Decoction of common *Millet-Seed*, called St. *Ambroſe*'s *Syrup*, which *Luther* looked upon as a Cure for the *Colic*. Count *Argenton* took it firſt by his Advice, merely to quench his Thirſt, in the Manner of Tea, by which Means he got rid of his Thirſt and Dyſentery in twelve Hours Time. However, he obſerves, that Univerſals are to be premiſed; and that *Ipecacuanha* is to be given to an Adult in larger Doſes than common, that is, *two Scruples and five Grains*. If the Patient is forced to riſe in the Night more than twice, the Vomit is to be repeated the next Day, which generally did the Buſineſs without a third. By this Means he cured ſome Thouſands in the *Hungarian* Army. But if the Diſeaſe is continued above four, or eight, or fourteen Days, *Emetics* are of no Uſe.

Another *Specific* is the *Vitrium Antimonii ceratum*, which has been in uſe for ſome Time, but was kept a Secret till it was communicated by Dr. *Young*, of *Edinburgh*, to the Public.

The Manner of preparing it is as follows:

Take of *Glaſs of Antimony* in Powder, one Ounce; *Bees-Wax* one Dram; melt the Wax in an Iron Ladle, then add the Powder; ſet them on a ſlow Fire without Flame, for the Space of half an Hour, continually ſtirring them with a *Spatula*; then take it from the Fire; pour it upon a Piece of clean white Paper, powder it, and keep it for Uſe.

This Quantity loſt a Dram of its Weight in the Preparation; the Glaſs melts in the Wax with a very ſlow Fire. After it has been about twenty Minutes on the Fire, it begins to

change the Colour, and in ten more becomes near the Colour of Snuff; which is a Mark of its being ſufficiently prepared.

The *ordinary Doſe for an Adult is ten or twelve Grains*; but for greater Safety, I commonly begin with ſix; to a *ſtrong Man* I have commonly given a Scruple, which has worked very mildly. To *weakly Conſtitutions* I give five or ſix Grains, increaſing the Doſe afterwards according to the Operation. To a *Boy of ten Years* of Age I give three or four Grains; to a *Child of three or four Years*, two or three.

I have given it in *Dyſenteries with or without a Fever*, whether *epidemic* or not; and I have found it ſucceſsful where Bleeding and Vomits have been premiſed, and where they are not.

I never give Opiates in the Beginning, eſpecially where there is great Sickneſs; becauſe, though Opiates give Relief to ſome, yet at other Times I have thought both the Sickneſs and Purging increaſed the following Day. I never began with a larger Doſe than ten Grains, becauſe it frequently operates as violently at firſt as twenty Grains at laſt, even upon the ſame Patient.

In its Operation, it ſometimes makes the Patient ſick and vomits; it purges almoſt every Perſon; but *I have known it to cure without* any Evacuation or Sickneſs; nay, in *violent Dyſenteries*, the Stools are *leſs frequent* with it, than without it.

If it purges ſufficiently, or fatigues the Patient, I intermit a Day or two between each Doſe. I have cured ſome with one Doſe, but have been obliged to give others five or ſix, eſpecially when the firſt Doſes have been too mild. After the ſecond or third Doſe the Stools are ſeldom bloody, the Gripes and Sickneſs abate much, and the mucous Stools grow leſs viſcid. Give it on an empty Stomach, for then I think it operates moſt mildly.

Forbid drinking any Thing after it for three Hours, unleſs the Patient is very ſick or diſpoſed to vomit, in which Caſe give warm Water as in other Vomits. Beware of giving it for a *Diarrhœa* in the End of a Conſumption. *I have cured other* Diarrhœas *of a long ſtanding with large Doſes of it*; but it has failed oftner here than in Dyſenteries.

I forbid the Uſe of all fermented Liquors, and recommend a *Milk-Diet*, with Rice or Bread; Chicken Broth or Water-Gruel. I give nothing cold unleſs a Tea-ſpoonful of Jelly of Hartſhorn as often as the Patient requires it; and ſometimes I indulge them with the Jelly of Currants to refreſh their Tongues.

It may be given ſafely to *pregnant Women*; and to *ſucking Children* you may give half a Grain.

Mr.

Mr. *Paiſley*, Surgeon at *Glaſgow*, ſpeaks of it thus: At firſt I gave only ſeven Grains for a Doſe, which was gradually increaſed to fourteen, to ſuch as were judged ſtrong enough to bear it; making it into a *Bolus* with *Conſerv. Roſar. Diaſcordium* or *Theriac. Edinenſ.* allowing for Drink *Water-Gruel* with or without Milk; at other Times *Emulſions*, *Tea*, or *weak Broth*; and always an Opiate after the Operation. It ſometimes vomited, always purged without Griping, or but very gently. When it vomited, it made the Patient ſick before the Operation; but the Sickneſs went off as ſoon as the Medicine worked downwards.

As the Diſeaſe was *epidemic*, and attended with a Fever at the Beginning, I firſt of all bled the Patient, and gave the Powder every other Day, and in the intermediate Days a light Cordial, and if there was great Pain in the lower Belly or *Rectum*, an emollient Clyſter.

Four or five Doſes, when taken in Time, perfected the Cure; but where the Diſeaſe was of long ſtanding, I have uſed twelve or fifteen Doſes, and never once ſaw any bad Effect from it.

I have tried it in *Diarrhœas*, *Dyſenteries*, and *Colic Pains* from Viſcidities in the Inteſtines, and found it a ſafe, eaſy Purgative, ſometimes a gentle *Emetic*, *and a ſurer and ſpeedier Cure than by the common Methods.*

Mr. *Gordon*, Surgeon at *Glaſgow*, ſpeaks thus of it: In the Harveſt Time, 1736, many People were carried off with a *Diarrhœa* and a *Dyſentery*; upon which I tried the *Stibium Ceratum*, and never miſſed of Succeſs in ſome Hundreds, except in one or two Caſes, where the Patients were quite exhauſted before they took it.

I prepared it as fine as *Calomel* uſually is; *three Grains* is a Doſe; I never exceeded five. One or two Doſes frequently perfected the Cure, I ſeldom gave three. It was taken in the Morning, and was often two Hours before it operated; ſome it only purged, others it purged and vomited, making them ſick for ſix or eight Hours. A good Doſe of *Opium* was always given at Night.

Mr. *Stephen* gave firſt *two Grains* for a Doſe, and increaſed a Grain every Doſe; giving an *Opiate* at Night. Of an hundred and ninety Patients he loſt but one, who turned *hectic*, and died about the thirty-ſixth Day. He never gave it where there was a *ſtrong Fever*, a *hectic Diſpoſition*, or a *colliquative Diarrhœa.*

Dr. *Pringle* gives the Hiſtory of two remarkable Cures, but too long to be inſerted. Mr. *Brown*, of *Dalkeith* ſays, a Man

about Forty was ſo reduced by a Dyſentery, that he could ſcarce walk or ſit upright. The common Method being tried in vain, he took three Doſes of the Powder, of nine Grains every other Day, which, with a proper *Regimen*, performed a Cure.

One of Eighteen had ſtruggled with this Diſeaſe three Months, with Gripes and Loſs of Appetite; after Bleeding, he took three Doſes of ſix Grains each, which ſuppreſſed, but did not entirely remove the Dyſentery; but three Doſes more of nine Grains effectually carried it off.

The *following Caſes* are from Profeſſor *Simpſon*.

One *Jervey*, upwards of Twenty, had a *ſevere Dyſentery*; he had ſcarce any Interruption in his Purging, attended with great Anguiſh and Sickneſs, by which he was greatly reduced. I gave him *fourteen Grains*, which made him eaſier in twenty-four Hours. The next Day he had a *Clyſter* of *Whey* and *Camomile Flowers*. but grew worſe. The third Day he took another Doſe without Succeſs, which I aſcribed to his catching Cold in going to Stool. Two Days after I perſuaded him to a third Doſe, and he was ſo ſenſible of the good Effects of it, that he took a fourth, which relieved him moſt of all. I ordered a fifth, to prevent a Relapſe.

A Woman had a *Dyſentery* for ten Days, with Horror, Gripes, Sickneſs, *&c.* Ten Grains given every other Day for three Times recovered her.

A young Lady took ſeven Grains of the *Mercur. præcip. Wurt.* for a Vomit, at Eight in the Morning, which by Eleven had operated five Times. She continued ſick for twelve Hours, and then began to vomit and purge, which continued till the next Morning. Then ſhe took *liquid Laudanum*, which eaſed her that Day, but the next, her Purging returned with Blood and Gripes. I gave her ſix Grains of the *anti-dyſenteric Powder*. It was ſix Hours before ſhe had a Stool, which was free from Blood and of its natural Form.

A Boy of Fourteen had a *Dyſentery* for a whole Year; I gave him a Doſe of ſix Grains: His firſt Stools were bloody; the ſecond Day he was eaſy; the third, his Stools were again bloody; the fourth, he had a ſecond Doſe, but did not purge, and was free from Gripes. The next Day his Stools appeared to form, though interſperſed with Blood, which, after this, diſappeared. I gave him two Doſes more, to prevent a Relapſe.

An old Man of Seventy was cured of a ſevere Attack with two Doſes of ſix Grains each.

A Wo-

A Woman, in the fifth Month of her Pregnancy, had a *violent Dyſentery* and *Teneſmus*. The third Doſe cured the Dyſentery, and *Clyſters* of Milk and Camomile Flowers the *Teneſmus*.

One who fell into a Dyſentery through Fatigue and Cold, was quite cured by three Doſes.

Another was cured by three Doſes of ſix Grains each.

February 1ſt, 1737, the *Dyſentery proved epidemic*. I cured a great Number by this Medicine, and none required above a third Doſe.

I gave it to a Woman the tenth Day after Child-bed with Succeſs.

One Woman, who was brought very low by the Diſeaſe, drank under it large Quantities of cold Water, and died. Her Huſband at the ſame Time recovered by its Uſe.

In Uterine Hæmorrhages *it has been equally ſucceſsful*. One *Simſon*, after a Miſcarriage of three Months, continued Flooding eaſily for four Weeks. On the fifth it was ſo violent that ſhe fainted perpetually, and ſeemed ready to expire. Upon taking ſix Grains the Flux abated in half an Hour, and in leſs than four Days ſhe was quite free from her Diſeaſe.

I gave it to an old Woman in a Uterine Hæmorrhage, which had been for ſome Time familiar to her, with equal Succeſs.

Another Woman miſcarried, but the *After-Birth* did not come away. Blood continued to ooze from her for three Months; at length it increaſed ſo much, that ſhe had an Evacuation of a Pound at a Time, with Faintings and great Uneaſineſs. Six Grains of the Powder gave her more Diſturbance than I had found it do in any other Caſe. A large Quantity of the *Placenta* came away, loaded with *Grape-like Hydatides*.

A Man of Seventy had been troubled with Gripes for eight Months, with now and then a Looſeneſs. He at length voided two or three Gills of Blood in a Day. After continuing thus for five Days, I gave him ſix Grains of the Powder; the firſt Doſe leſſened his Flux, the ſecond quite cured him.

Bontius, in his Account of the Diſeaſes of the *Eaſt-Indies*, affirms, that Extract of Saffron is a Specific in the Dyſentery of thoſe Parts, even though it ſhould proceed from Poiſon.

Of the Head-Ach.

THE *Head-Ach* is a moſt troubleſome Senſation in the nervous Membranes of the Head, produced by various Cauſes, and attended with different Symptoms, according to its different Degrees, and the Place where it is ſeated.

The moſt common *Seat of this Diſeaſe* is the *Pericranium*, a Membrane which inveſts the Skull, coheres with the Muſcles next the Skull, and is joined to the *Dura Mater* by ſome Fibres which paſs through the Sutures. It is a thin nervous Membrane of exquiſite Senſe. It may likewiſe be in the Skin that covers the Skull, and in the *Dura Mater*; this laſt but ſeldom happens; but when it does, it is very dangerous. There may likewiſe be a very acute Pain in the thin Membrane which covers the *Sinus* of the *Os Frontis*.

If the Head-Ach be ſlight, and affects a particular Part of the Head, it is called *Cephalalgia*; if the whole, *Cephalæa*; if one Side only, *Hemicrania*; if there is a fixed Pain on the Forehead, which may be covered with the End of the Thumb, it is called *Clavus hyſtericus*.

The *general Cauſe* of the *Head-Ach* is a Hindrance of the free Circulation of the Blood through the Veſſels of the Head.

When the Blood ruſhes with Impetuoſity, and in too great Plenty into the Membranes, which may happen to the *Plethoric*, to thoſe whoſe uſual Bleeding at the Noſe is ſuppreſſed, and to young Perſons, there is a Pain in the whole Head, which becomes hot, ſwells, achs, and looks red; the Veſſels ſwell, and there is a ſtrong Pulſation in thoſe of the Neck and Temples. The Noſtrils are dry and parched, there is a burning Heat and Drought in the *Fauces*.

When the Veſſels of the Head are ſtuffed with a *mucous Serum* from a Stoppage of the Running of the Noſe, then there is a heavy, obtuſe, preſſing Pain, chiefly in the Fore-part of the Head, in which there ſeems to be ſuch a Weight, that the Patient can ſcarce hold it up. Sometimes the Skin is ſo ſwelled, that it will pit.

Sometimes it happens from the ſerous, ſharp, cauſtic Matter of the *French Diſeaſe*, which infeſts the *Pericranium*, and often cauſes a *Caries* in the Skull.

Sometimes it may proceed from Matter of a ſaline cauſtic Nature, driven back from the external Parts; as, in the *Gout*, *Itch*, *Eryſipelas* of the Head, *Gutta roſacea*; in the *Small-Pox* and *Meaſles*, before the morbid Matter is expelled to the outward Skin, or, which is worſe, when it is driven back. In theſe Caſes, when a ſmall Quantity of cauſtic Matter cauſes the Pain, it rather proceeds from a violent Stricture of the Membranes than from their Diſtenſion.

There is likewiſe a moſt violent, fixed, conſtant, and almoſt intolerable *Head-Ach*, which brings on a Debility both of Body and Mind, hinders Sleep, diſturbs Digeſtion, deſtroys the Appetite, cauſes a *Vertigo*, Dimneſs of Sight, Blindneſs, a

Noiſe

Noiſe in the Ears, Convulſion, and the Epilepſy; and, by Conſent of the other nervous Parts of the Body, produces Vomiting, Coſtiveneſs, Coldneſs of the extreme Parts, and the Countenance of a dying Perſon.

Sometimes the *Head-Ach* is ſymptomatic, and attends upon *continual* and *intermitting Fevers*, and eſpecially the *Quartan*; *irregular Flowing* of the *Menſes*, the *hypochondriac Paſſion*, and the like. A *Hemicrania* generally proceeds from a Fault in the Stomach, from Crudities or Indigeſtion, and commonly appears when Digeſtion is performed.

The Head-Ach *is not always without Danger:* If the Cauſe of the Pain is within the Skull, and is violent and conſtant, attended with a Fever, and want of Sleep, it portends a *Phrenſy*. If it ſuddenly attacks the Hypochondriac, or thoſe that are prone to Melancholy, eſpecially if preceded by a violent Paſſion of the Mind, and deprives the Patient of Sleep and Appetite, and is joined to Difficulty of Hearing, and an internal Pulſation of the Veſſels, and all theſe without a Fever, it preſages *Madneſs*. But when the Pain in the Head is ſudden, and very acute, with a Noiſe in the Ears, difficult Walking, a Weakneſs of the Knees, an Impediment and Slowneſs in Speech, it is the Forerunner of an *Apoplexy* or a *Palſy*; in which laſt the Pain is greater on the well Side than the diſeaſed, becauſe the latter has loſt all Senſation *. When young Perſons have frequent Head-Achs, it is a Sign they will hereafter be afflicted with the Gout.

The *Curative Indications* are, 1. To divert the Impetus of the Blood and Humours from the Head, and to diſcuſs them by ſuitable Remedies. 2. To relax the ſpaſtic Strictures of the Membranes of the Head, the Cauſe of which is a ſharp Cauſtic Matter, that the Fluids may have a freer Circulation. 3. To correct the peccant Matter, and evacuate it gently through the moſt convenient Emunctories. 4. To prevent a Return, by ſtrengthening the whole nervous Syſtem by proper Remedies, and eſpecially by an accurate Diet, and a ſuitable Regimen.

When the Blood ruſhes to the Head in too great Quantity, *Bleeding is neceſſary*, more particularly *under the Tongue*, in the *Forehead*, in the *Jugulars*, or by *Leeches* behind the Ears. If the Body abounds with too much Blood, it will be beſt to bleed in the Ancle firſt, and the next Day, or the Day after, in a Vein about the Head. But firſt of all cleanſe the Body by any *emol-*

* I was very lately a very unhappy Witneſs to the Truth of this Obſervation: An Apothecary in my Company was ſuddenly ſtruck with a Palſy on the left Side of his Body. He complained as well as he could of a Pain in the right Side of his Head, and a great Tingling in the Paralytic Side. His Memory was almoſt immediately loſt.

lient

lient Clyſter, or by giving an Infuſion of *Rhubarb* and *Manna*, with *Cream of Tartar*.

To reſtrain the *Orgaſm of the Blood*, it will be proper to give a diaphoretic and abſorbent Mixture, with *diaphoretic Antimony*, *p[illegible]ified Nitre burnt Hartſhorn*, and *Diacodium*, diluted with a ſufficient Quantity of ſuitable ſimple diſtilled Waters. Or the following Emulſion:

1. ℞. *Nucleor. Perſicor. Amygdal. amar. an.* ℥j. *Sem. Papav. alb.* ʒij. *Aq. Roſar. Alexeter. ſimp. Cortic. Aurant. ſimp. an.* ℥ij. *M. F. Emulſio. Adde Nitri* ʒſs. *Camphor. in Ol. Amygdal. ſolut. gr.* v.

But if the *Head-Ach* proceeds from a *copious vitiated Serum*, ſtagnating in the Membranes, either within or without the Skull, with a dull, heavy, continual Pain, which will neither yield to *Bleeding*, nor *gentle Laxatives*, then more powerful Remedies are required to diſſolve the thick glutinous Humours, and to carry them off by Stool.

2. ℞. *Gum. Ammon. depurat. Sagapen. Myrrh. Elect. Aloes Socotrin. Extract. Hellebor. nig. Reſin. Jalap. Mercur. dulc. Cinnab. ppt. an.* ʒſs. *Extract. Croc. Pulv. Caſtor. Sal. Succin. an. gr.* xv. *M. F. Pil. ex.* ℈j. No. xii. *quorum ſex Veſperi & ſex poſtero Die Mane ſumi poſſunt.*

On the Day theſe Pills are taken, let the Patient take nothing but thin Broths. After three Days they may be repeated again. When the vitiated Serum has been ſufficiently evacuated, then give *ſtrengthening Remedies*, mixed with *Diuretics*. At the ſame time the Patient ſhould uſe Exerciſe to make him ſweat, with ſtrong Frictions, and ſuch Aliment and Liquors as tend to promote a Diſcharge by Urine.

If this Method fails of Succeſs, apply a Bliſter, made with an Ounce of the *Emplaſtrum attrahens*, and a Dram of *Cantharides*, adding a few Grains of *Camphire*. It may be of the Size of a Crown Piece, and applied to the Nape of the Neck; it ſhould be often renewed, and continued for a long Time. When the Diſeaſe is evident to the Sight and Touch, from the *Serum* ſtagnating under the Skin of the Head, a *Bliſter* may be laid all over the Head with great Advantage.

When there is an *intenſe Pain remaining fixed in one Place*, lying pretty deep in the Membranes, the Herb *Ranunculus*, uſed as a *Veſicatory*, has a wonderful Efficacy. It is the *upright Meadow-Crawfoot*, with Leaves like the *Anemone*, and, if taſted, is extremely biting to the Tongue. The Leaves muſt be bruiſed in a Marble Mortar, and the Part, if hairy, ſhaved; then a *ſticking Plaiſter* is to be laid on it, with a Hole about the Bigneſs of a Silver

Silver Penny, and the Leaves over that; juſt in the ſame Manner as a Cauſtic. This is an Experiment of *Cheſnau*'s; and I have had the like Succeſs, by mixing equal Parts of *volatile Sal Ammoniac*, and *Powder of Muſtard Seed*, laying it on the Part in the ſame Manner.

When it is cauſed by a Suppreſſion of a *Coryza*, or *Running of the Noſe*, a Smelling-Bottle of volatile Salts ſhould be held frequently thereto. Or the Patient may take *Herb Snuff*, with the Addition made of *Flowers of Benjamin*, and *Powder of Cloves*.

When the *Head-Ach* ariſes from a *corrupted Maſs of Blood*, and an *impure Serum*, as in the *Scurvy*, and *Lues Venerea*, a *Decoction of the Woods*, with *crude Antimony*, may be ſerviceable, after Evacuations, with the Pills recommended above. *Faſting* a Day now and then, with *Labour* and *Exerciſe*, will likewiſe be uſeful; as alſo a *Sudorific*; for which Purpoſe, I adviſe the following Powder:

3. ℞. *Cinnab. nativ. ppt. Calc. Antimon. ſive Bezoar. mineral. Sal. Volat. Corn. C. Nitr. purificat. an. gr.* x. *Camphor. gr.* ſs. *M. pro Doſi; ſuperbibendo Hauſtus Decocti Lignorum.*

A *Hemicrania*, eſpecially a periodical one, is generally owing to a Foulneſs in the Stomach and *Primæ Viæ*, for which *gentle Emetics* will be beneficial, as alſo *Purgatives*, to derive the Humours from the Head; afterwards *Stomachics*. If it proceeds from profuſe Evacuations of the Menſes, or Hæmorrhoids, thoſe Fluxes muſt be reduced within bounds.

If the Head Ach *is ſo intolerable as to endanger the Patient's Life*, or is attended with *continual Watching*, *Fainting Fits*, a *Fever*, an *Inflammation*, or a *Delirium*, Recourſe muſt be immediately had to *Opiates*, with *native Cinnabar*, after a *Clyſter* has been firſt given. *Externally*, I know nothing more efficacious than the following *Liniment*:

4. ℞. *Ol. Nuc. Moſchat. expreſſ.* ℥ ſs. *Styrac. Calamit. Oliban. an.* ʒj. *Extract. Croc. Balſam. Peruv. an.* ʒ ſs. *Ol. Lign. Rhod. gutt.* xij. *M. F. Linimentum ſpiſſius.*

This muſt be ſpread upon a ſmall Bit of Leather, and applied to the Temples. When the Pain is mitigated with Anodynes, a *gentle Cathartic* will be neceſſary.

When there is an intolerable Pain in the *Sinuſes* of the Noſe, or the boney *Sinuſes* of the Head, produced by an Extravaſation of ſome Fluid, the only Cure is Scarification of the Noſtrils, or cauſing the Noſe to bleed with a Straw ſuddenly thruſt therein.

If

If there is an Extravaſation under the *Pericranium*, and the Humour is ſo ſharp as to begin to render the Bone carious, then Recourſe muſt be had to an Inciſion, as in a Whitloe.

In ſome Kinds of Head-Ach, it will be proper to open the frontal Vein.

Some adviſe Bleeding in the *Temporal Artery*, but this I have never tried, becauſe Bleeding in the *Jugular Vein* will anſwer the ſame End; but if any think it expedient to open a Vein in the Temples, it is ſafeſt near the Articulation of the lower Jaw.

When the Patient's Strength will not bear the Loſs of Blood, temperate *Pediluvia* will be beneficial, and ſtrong Frictions of the Feet with a coarſe Cloth; as alſo Cataplaſms of Horſe Radiſh and Salt laid thereto.

If the *Head-Ach* ariſes from a ſudden Orgaſm in the Blood, proceeding from Heat, Exerciſe, or Labour, Evacuations of any Kind are not then proper; but rather cooling Draughts, with Nitre. HOFF.

Camphire, diſſolved in any cephalic Spirit, and ſnuffed up the Noſtrils, will allay the Pain in the Head. GROENVELT. Or the Juice of *Ground-Ivy*. RAY. *Marum Syriacum* is almoſt a Specific in an obſtinate Head-Ach; the Doſe is half a Dram. ANON.

Of the HEART-BURN.

THE *Heart-Burn* is a Pain more or leſs violent about the Pit of the Stomach, with *Anxiety*, a *Nauſea*, and often a *Retching*, or actual *Vomiting*.

The Cauſes are *vitiated Humours* in the Stomach, vellicating and gnawing the Stomach itſelf, or its *left Orifice*, which the Ancients call *Cardia*. *Hoffman* thinks the *right Orifice*, that is, the *Pylorus*, is the Seat of this Diſeaſe. The *Stomach* thus irritated, a painful Senſation is excited, and *ſpaſmodic Conſtrictions*, which occaſion a *Nauſea* and *Vomiting*. But *common Heart-Burns* are generally without Vomiting. The *Heart-Burn* may alſo proceed from *Wind* and *Indigeſtion*, and now and then from *Worms*; but more frequently from *Congeſtions of Blood* about the Stomach, which may happen to thoſe who are full of Blood, but more eſpecially to the *Hypochondriac* and *Hyſteric*, when vomiting of Blood not ſeldom enſues. It may likewiſe accompany *acute Fevers*, but eſpecially the *Malignant*.

The *Cure of a common Heart-Burn* from Indigeſtion, and the Acrimony of the Contents of the Stomach, which chiefly happens

pens in a Morning with Wind, may be performed only by drinking *Tea* or *Coffee*; or a *Decoction of Camomile Flowers*; as alſo by taking *Bitters*, or a Dram of Powder of *Orange Peel*, or *Camomile Flowers*, in a ſmall Glaſs of Wine made pretty hot, and ſweetened with Sugar. The *teſtaceous* and *abſorbent Powders* are excellent in this Caſe; ſuch as the *Tabellæ Cardialgiæ*, or *Lozenges* for the *Heart-Burn*, which may be carried in the Pocket, and taken at Pleaſure; about a Dram is ſufficient for a Doſe. The following Julap will anſwer the ſame End:

1. ℞. *Cretæ alb. ppt.* ℥ij. *Gum. Arabic.* ʒiſs. *Sacchar. alb.* ℥iij. *ſuperaffunde Aquæ bullientis Cong.* j. *& adde Aq. Cinnam. Spir.* ℥ij. *F. Julapium. Capiat ad libitum.*

When it ariſes from a *Crapula*, gentle Emetics will be uſeful. If the Patient begins to vomit, without them, large Draughts of warm Water will aſſiſt to cleanſe the Stomach; or *Carduus Benedictus* Tea taken freely.

If the *Cardialgia* proceeds from a *Congeſtion of Blood*, and the painful Spaſms then ariſing, *Bleeding* will be convenient, and Emetics hurtful. If the *Menſes* are ſtopped, bleed in the Foot. Then give *Antiſpaſmodics*; thus,

2. ℞. *Fol. Baſilic. Betonic. Veronic. Salv. Flor. Chamæmel. an. M.* j. *Sem. Fœnicul. Aniſ. an* ʒij. *M. F. Species.*

An Infuſion of ſome of this Species muſt be drank every Morning as Tea. Alſo the following Pills muſt likewiſe be taken every Evening:

3. ℞. *Extract. Flor. Chamæmel. Millefol. Salv. Card. Benedict. Mithridat. an.* ʒj. *Croc. Caſtor. an.* ℈j. *M. F. Pilulæ ex Scrupulo uno.* N°. xx. *pro una Doſi.* HOFFMAN.

Likewiſe the following Powder may be given in a proper Vehicle, two or three Times a Day:

4. ℞. *Rad. Valerian. ſylv. Calc. Antimon. Pulv. è Chel. Cancror. comp. an.* ʒj. *Cinnab. nativ. ppt. Nitr. Purif. an.* ℥ſs. *Caſtor. pulv. gr.* viij. *M. F. Pulvis. Doſis eſt Scrupulus unus.*

Nor muſt *anodyne* and *emollient Clyſters* be omitted. It will likewiſe be proper to apply a Bladder filled with a Decoction of Chamomile, pretty hot, to the Stomach. After Recovery, Riding will be convenient to regain the loſt Strength. HEISTER.

In all *Heart-Burns*, emollient Clyſters will be proper to be injected two or three Times; or Clyſters of the Carminative Seeds boiled in Milk. Outwardly, the following Liniment is of wonderful Efficacy:

5. ℞.

5. ℞. *Theriac. Androm. Ol. Nucis Expreſſ. an.* ℥j. *Caſtor. Croc. Balſ. Peruv. an.* ʒj. *Ol. Junip. Caryophil. an. gut.* xx. *Camphor.* ℈ ſs. *M. F. Linimentum.*

As alſo a Bag filled with the following Species:

6. ℞. *Fol. Menth. Flor. Chamæmel. Sambuc. an. M.* j. *Baccar. Laur. Junip. an.* ℈ ſs. *Sem. Cymin. Carui, Caryophyl. Nuc. Moſchat. an.* ʒij. *M. F. Species quæ ſacculo poſſunt includi & calidè parti affectæ applicari.*

If *Worms* are the Cauſe of the *Heart-Burn*, no acrid *Anthelmintics* muſt be given, but warm Milk mixed with Oil of Sweet Almonds, which, if drank in ſufficient Quantity, may cauſe them to be thrown up. HOFFMAN.

Of the TOOTH-ACH.

THE *Tooth-Ach* is cauſed by *impure Serum*, which corrodes and rends the *Ligaments* and *nerveo-glandulous Coats*, by which the Roots of the Teeth are kept firm in their Sockets, and wherewith they are inveſted.

It is a kind of *Rheumatic Diſorder*; for we have often obſerved that Pains of the Joints and Shoulders have ſhifted to the Side of the Head, and have invaded the Teeth and Gums with violent Pain. On the contrary, Pains of the Head and Teeth have fallen into the Arms and Shoulders.

The Seat of the *Tooth-Ach* may alſo be in the Cavity or internal Parts of the Teeth themſelves, that is, in the little *veſicular Cord* compoſed of the nervous Membrane, an Artery, a Vein, and a Lymphatic Veſſel, which may either be *diſtended* by *ſtagnating Serum*, or be affected with a *ſpaſtic Conſtriction*, eſpecially if the Tooth is *carious*, and the *Caries* reaches the ſaid Cord.

As in the *Gout* there is a *Pain*, *Redneſs*, a *Tumour*, and a *little Fever*, ſo they ſometimes appear with the *Tooth-Ach*. There is alſo frequently a copious Diſcharge of *Saliva*, which proceeds from a *painful Spaſm*, which conſtringes the Lymphatic and Venous Veſſels.

As the *Rheumatiſm* appears in temperate, and a ſudden Change of Weather; ſo it is with the *Tooth-Ach*, eſpecially when the Weather is hot and cold by Fits.

The whole *Intention of Cure* conſiſts in deriving and diverting the *impure ſcorbutic Serum* from the Head, then carrying it off through proper Emunctories; and afterwards in ſtrengthening the Parts.

This

This is to be done by *ſaline, emollient, purgative, Clyſtres*; by warm *Pediluvia* of Rain Water and Wheat Bran, with *Venice* Soap, and uſed juſt before Bed-time; by *Laxatives* of *Manna* and *Caſſia* diſſolved in Whey, or Aſſes Milk, or mineral Waters. If the Patient is plethoric, or full of Blood, Bleeding in the Foot will derive the Humours from the Head.

Sudorific Remedies are alſo proper, but more eſpecially an Electuary made of *Rob* of *Elder Berries*, burnt Hartſhorn, diaphoretic Antimony, and a few Grains of Nitre, which cannot be too highly praiſed. Or an Ounce of the *Rob* may be taken in Broth to promote a *Diaphoreſis*; and it may be uſed externally, diſſolved in Beer, in the Manner of a Gargle, which will yield immediate Relief to the Patient.

When the Patient is ſubject to *Catarrhs*, is *ſcorbutic* or *cachectic*, then *mineral Waters* are moſt proper; and if the Patient is of a weak bilious Conſtitution, the Water ſhould be mixed with *Aſſes Milk*.

Outwardly may be applied Bags, filled with *paregoric* and *emollient Species*, ſuch as *Elder*, *Melilot*, and *Camomile Flowers*, *Bay* and *Juniper-Berries*, *Carraway* and *Millet Seeds*, and *decrepitated Salt*. They muſt be laid on warm, and are very ſafe.

A Drop or two of *Oil of Cloves*, or *Box*, applied to a *carious Tooth* with Cotton, are Medicines not to be deſpiſed. *Camphorated Spirit of Wine* mixed with *Saffron*, *Caſtor*, and *Opium*, made into a Liniment, and laid to the Gums and hollow Teeth, often gives the Patient Eaſe.

When the *Tooth-Ach* proceeds from a rotten, hollow Tooth, it will be beſt to *burn the little nervous Cord*, which is the Seat of the Pain, with an *actual Cautery*; and then the Cavity may be filled up with a Mixture of *Wax* and *Maſtich*. I have known this attended with great Succeſs.

If this cannot, or is not permitted to be done, the only Remedy left it to have the Tooth drawn. But if the Patient is *plethoric*, it will be ſafeſt to bleed firſt, for fear of a *fatal Hæmorrhage*.

When every thing elſe fails, I have had great Succeſs from the following Pills:

℞. *Pil. Aromat.* ʒj. *Pil. è Styrace* ʒſs. *Extract. Croc. gr.* vi. *M. Pil.* No. lx.

Six or eight of theſe Pills are a Doſe, and are beſt taken at Bed-time. HOFFMAN.

A ſmall Pill, made of equal Quantities of *Camphire* and *Opium*, and put into a hollow Tooth, is often beneficial. Some greatly recommend a ſmall Plaſter of *Tacamahac* laid on the Side of

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the Face, upon the Ariiculation of the Jow-Bone, or upon the Temples.

But above all which I have hitherto known, the Root of *Iris lutæa*, or the *Yellow Water Flower de Luce*, rubbed upon the Tooth that is painful, or the Root itſelf chewed in the Mouth, in an Inſtant, as if by a Charm, drives away the Pains of the Teeth, ariſing from what Cauſe ſoever. The Perſon who recommended it to me had tried it forty Times at leaſt, with Succeſs. I have tried it myſelf, and many others have done the ſame by my Recommendation, and I hardly ever knew it fail. ALLEN.

It is now become a Practice, eſpecially in *France*, upon drawing a ſound Tooth, to replace it in its Socket; where, with proper Precautions, it will faſten again. *Muſgrave* is the firſt that I know of who recommends this Practice. After the Extraction of the Tooth, he adviſes a *Gargle of Honey*, mixed with the Juice of the Herb *Mercury*, *common Salt*, and *Spring Water*, and then to put it in its former Place; and adds, it will become more uſeful than before.

The *French Operators* have improved this Hint; and when the Tooth is rotten, or otherwiſe unfit to be replaced, they put another ſound human Tooth in the Room of it, when it can be had; otherwiſe one of any other Animal, that is of a Size ſuitable for the Purpoſe.

De la Motte, in the Tooth-Ach, adviſes to make a ſmall round ſticking Plaiſter, about the Bigneſs of a Silver Groat, and to put a flat Bit of *Opium* in the Middle of it, of a Size not to prevent the Adheſion of the other. This is to be laid on the Artery near the Cavity of the Ear, where the Pulſation is moſt ſenſible. He affirms, there are few Caſes that this will not relieve.

Of the EAR-ACH.

THE *Ear-Ach* is a grievous Pain in the *Meatus Auditorius*, or Cavity of the Ears, proceeding from a ſharp, extravaſated Serum, affecting the nervous Membrane which lines the *Meatus Auditorius*.

This Diſorder frequently attacks thoſe who are ſubject to *rheumatic* and *ſerous Defluxions*; or it may ariſe from a ſudden Suppreſſion of Sweat, or from the Head being expoſed to cold Winds when it is moiſt with Sweating. The *Cauſe* is often an *Inflammation* or *Ulcer* of the Ear, attended with a remarkable *Heat*,

Heat, and *tenſive beating Pain*, a *Redneſs*, a *Fever*, and even ſometimes a *Delirium*. Sometimes it is excited by *Worms*, and then there is a wandering, cutting, gnawing Pain.

The *Ear-ach* is ſometimes a Symptom of *acute Fevers*, when the *morbific Matter* is tranſlated to the Ear, as in the *Hungaric Diſeaſe*, when *Deafneſs*, or Difficulty of Hearing, ariſes. When it happens in the Declenſion of a Fever, it is a certain Sign of Recovery; but then the Diſorder is in the *internal Part of the Ear*, and the *auditory Nerve*. When the Matter is tranſlated to the external Part, then the *Ear-ach* ariſes, which, unleſs ſpeedily appeaſed, may deprive the Patient of Life. Thoſe who have the *Ear-ach* from a Fall, and a *ſanious Matter* runs out of the Ear, are all carried off.

The principal Scope is to *eaſe the Pain*, which may be done with *nitrous* and *cinnabarine Powders*, and with Emulſions of the greater cold Seeds; but if theſe are ineffectual, we muſt have Recourſe to *Opiates*, ſuch as the *Styrax* Pills, or the *Thebaic Tincture*.

Outwardly, lay a Plaiſter to the *Temple* of the affected Side, compoſed of *Maſtich*, *Galbanum*, *Saffron*, expreſſed *Oil of Nutmegs*, and *Opium*. Afterwards let the Ear be held over the Vapour of Milk, with the fragrant and emollient Species. Alſo, fill a *Hog's Bladder* with the Decoction of Milk, of Flowers of *Mallows*, *Mullein*, *Elder*, *Mellilot*, *Camomile*, *Linſeed*, and a *little Saffron*, and apply it to the Part affected. Likewiſe the Smoke of *Tobacco* blown into the Ear, and an Infuſion of *Millepedes* in Sallad Oil, are thought to be of great Efficacy when the Inflammation is cauſed by a *ſharp Serum*. HOFF.

Camphorated Spirit of Wine, eſpecially with *Saffron*, made pretty hot, and a few Drops of it put into the Ear with Cotton Wool, is a great Reſolvent; it ſhould alſo be rubbed into the Parts behind the Ear. Or *Oil of Almonds* with *Camphire* may be uſed in the ſame Manner; laying over either of them a *hot Bag* filled with *reſolvent Herbs*, as *Sage*, *Penny Royal*, *Wild Thyme*, *Wild Marjoram*, *Camomile Flowers*, *Florentine Orris*, *Fennel* and *Caraway Seeds*, with *Camphire*. When the Patient is plethoric, *Bleeding* is convenient.

The moſt violent *Ear-ach*, from taking cold, may be infallibly cured, in a very ſhort Time, by applying the Ear cloſe to the Mouth of a bellied Jug, filled with a hot ſtrong Decoction of *Camomile Flowers*.

When the *Inflammation* will not reſolve, a *Pultice* of white Bread and Milk, or Onions roaſted under the Cinders, or the like, may be often laid hot to the Part affected, till it breaks, or the Abſceſs is evident to the Eye. HEISTER.

If the Ear-ach is cauſed by any Thing got into the Ear, it will be beſt to relax the Membranes, by Oil of Almonds, and then cauſe the Patient to ſneeze, which forces it out, as I have often experienced.

When there is a *copious Flux from the Ear* after an *Abſceſs*, the Humours muſt be diverted by *gentle Laxatives*, *Bliſters*, *Cupping*, and *Pediluvia*, if the Patient is an Adult. It ſhould not be ſuddenly ſtopped by Externals.

When a Pain in the Ear ariſes in acute Fevers, with a Swelling of the *Parotid Glands*, nothing yields more ſpeedy Aſſiſtance than *Cupping in the Neck with Scarification*, and an emollient Pultice of fat Figs, Saffron, Honey, Juice of roaſted Onions, and white Lily Root, applied to the Part affected. *Worms* may be enticed out of the Ear by warm new Milk, or killed with Oil of Wormwood or Almonds.

Of the Stone *in the* Gall-Bladder.

THE Signs of it are a fixed Pain in the right *Hypochondrium* in the Region of the Liver, which is conſtant, preſſing, heavy, and ſometimes acute; often attended with an ill Colour in the Face. The Pain ſometimes reaches to the Epigaſtric Region, and the Pit of the Stomach; and the Exacerbation is ſo great, at certain Intervals, that the Gripes and Torture affect the whole Cavity of the *Abdomen*; joined with Inappetence, a *Nauſea*, Reaching to vomit, Anxiety of the *Præcordia*, *cardialgic* Anguiſh, Coſtiveneſs. At length, if the Diſeaſe is obſtinate, and will not yield to the beſt Remedies, the Jaundice ſupervenes. Some of theſe Patients are continually afflicted with Gripes, and live in this Condition for many Years, and generally die of the Dropſy. Some feel a heavy, obtuſe, deep, obſtinate Pain, with a tenſe Weight, when the Gall-Bladder is greatly diſtended with ſmall ſoft Stones.

If the Pain continues very intenſe and ſharp, it draws the whole Syſtem of the nervous Parts into Conſent, cauſing ſpaſtic Strictures, not only of the adjacent Parts, but alſo of the remote; Diſtentions of the Arms and Joints, epileptic Convulſions, and likewiſe a Fever with a hard quick Pulſe, which ſhews a large rough Stone is firmly fixed in the biliary Ducts, that will ſoon hurry the Patient out of the World.

But nothing is a more certain Sign that theſe terrible Diſorders proceed from Gall-Stones than when they are voided with the Excrements; and then all the Symptoms ceaſe at once,

once, except the Jaundice, which diſappears by little and little, or is eaſily cured.

If the Stones are ſoft, and of a light Colour; or are tophaceous and like Mortar of Plaſter, they moſt probably proceed from the *Hepatic Ducts*: If they are rough, hard, angular, and of a deep Colour, from the *Gall-Bladder*, eſpecially if attended with moſt cruel Symptoms in their Paſſage through that ſlender Canal. However, *Stones* have been found in the *Gall-Bladder* after Death, which have produced no extraordinary Symptoms.

Sometimes theſe Pains and Spaſms return periodically.

There are two Times of the Diſeaſe, which require two different Methods of Treatment; in the Fit and out of the Fit.

In the Fit, the Spaſms are to be appeaſed with *Anodynes* and *Demulcents*, ſuch as Oil of Sweet Almonds, and freſh *Spermaceti* internally. Externally, the Fat of a wild Cat, or a Beaver, *&c.*

Demulcents are Milk, ſweet Whey, Emulſions of the cold Seeds, Infuſions or Decoctions of Marſh Mallow Roots, with wild Poppies, Elder, Syrup of Marſh Mallows.

Powders may be made with Crabs Eyes, Cinnabar, and Nitre, with a little Saffron, Powder of Earth-worms, Elks-hoofs, *&c.*

Externally, emollient Epithems, and *Sacculi*, filled with carminative Ingredients. As alſo lenient Clyſters, and Laxatives of Manna, Rhubarb, Cream of Tartar, and the like.

For a Laxative:

1. *R. Mann.* ℥ij. *Crem. Tartar.* ʒiſs. *Nitr. purificat. gr.* xij. *Ol. Amygd. dulc.* ʒiſs. *M. F. Potio.*

Let it be taken in a Morning by little and little.

Out of the Fits, opening Infuſions and Decoctions; which reſolve, diſcuſs, and promote Excretions; ſuch as *Rub. Tinctor. Dog-graſs*, *Rad. Gramin. Aſparag. Petroſelin. Pimpinel. Ariſtoloch. Curcum. Cichor.* afterwards adding *Rhubarb*, *Terra Foliat. Tartar.* or, *Sal. Polychreſt.* and *Syrup of Marſh Mallows*, which muſt be uſed a long while.

Some praiſe the Roots of *Dog-graſs*, and the Juice of *Dog-graſs*, as a Specific.

2. R. *Rad. Gramin. mundat. M.* j. *Glycyrrhiz. exſiccat. Coquantur in Aq.* ℔iij. *Sub finem adde Nitr. purificat.* ʒſs. *F. Ptiſana.*

Two Drachms of the Roots of *Pareira Brava*, gently boiled in a Pint of Water, and drank at three Times, with three

Hours Diſtance between each Draught, is good in all calculous Caſes, and the moiſt *Aſthma*.

Some uſe the Powder of *Millepedes* with neutral Salts.

Epithems made of *Camomile-flowers*, *Leaves of Scordium*, *Wormwood*, and *Carduus Benedictus*, *Elder-flowers*, *Water*, and *Red Wine*, uſed often in a Day, are beneficial.

But if theſe fail, after long Uſe, the only Refuge is in Mineral Waters, among which the *Pyrmont* is not the leaſt ineffectual.

Theſe are alſo properly uſed by way of Prevention, with Exerciſe, Decoctions of the aperient Roots, eſpecially acuted with *Sal Polycreſt. Ter. foliat. Tartar.* or *Nitre*. HOFFMAN.

Frewen gives an Inſtance of a Woman who was afflicted with this Diſorder, and had Colic Pains often returning with Symptoms of the Jaundice. In the Fit the Pulſe was ſtrong and quick, the Tongue rough and yellowiſh, the Belly ſomewhat coſtive, the *Fæces* white, the Urine thick, ſometimes of a deep red, but oftner of a Saffron Colour. The Pain was chiefly in the left *Hypochondrium*, which was exaſperated by riding, Exerciſe, and violent Motion.

To prevent a Fever, or Inflammation, he took away ℥xij. of Blood, which was of a bright Red [*rubicunda & rutila.*] The *Serum* was green and tinctured with Bile.

At Night ſhe took the following Bolus:

℞. *Hydrarg. Alkaliſat.* ʒſs. *Sperm. Cet. gr.* xii. *Spec. Diamb. fin. Od. gr.* iii. *Conſ. Flor. Malv.* ϑſs. *Syr. Violar. q. ſ. M. F. Bolus.*

The next Morning early the following Potion:

4. ℞. *Mann. Opt.* ℥j. *Sal. Glaub.* ʒiij. *ſolv. in Aq. Lact. Alexeter.* ℥ijſs. *Tum adde Syr. de Spin. Cervin.* ℥j. *Elix. Salut.* ℥ſs. *Spir. Lavend. comp.* ʒj. *M. F. Potio.*

This brought away an hundred Stones. At Night,

5. ℞. *Sal. Abſynth. gr.* xxv. *Succ. Limon. recentis* ℥vj. *vel ad Saturationem Salis. Aq. Cin. ten.* ℥j. *Nephrit.* ʒſs. *Syr. de Croc.* ʒiij. *Tinct. Spec. Diamb. gut.* xx. *Ocul. Canc. ppt. gr.* xv. *Sal. Prunel.* ϑſs. *M. F. Hauſtus. Horâ decubitus ſumendus.*

With Regard to the Liver, ℥iij. of the following opening Decoction was preſcribed:

6. ℞. *Rad. Petroſelin. Aſparag. an.* ℥ſs. *Aq. Fontan. bullientis. Fiat Infuſio per Horæ quadrantem. Colatur.* ℥xiij. *add. Aq. Nephrit.* ℥j. *Syr. de* 5 *Rad. Aperient. Violar. an.* ℥ſs. *Sal. Prunel. Tartar. regen. an.* ʒſs. *M.*

7. ℞.

℞. *Sapon. Venet. Tart. regenerat. an.* ʒ ſs. *Aq. Cinnam. cen. Nephrit. an.* ʒ ſs. *Syr. de* 5 *Rad. aper.* ʒ iij. *M. F. Hauſtus quem capiat primo Mane Hor.* 5 *P. M. & Hor. Decubit.*

In three Days the Jaundice vaniſhed.

The Purge was repeated; more Stones were voided.

She then took ℔ ſs. of Sea Water, every Morning at Five. By this Means three hundred Stones were excreted, and the Patient continued well.

Quickſilver, Soap, and Sea Water, are excellent in this Caſe. FREWEN.

Of the LOCKED-JAW.

CONVULSIONS occaſioned by Wounds, have, by almoſt all Authors, ſince the Days of *Hippocrates*, been pronounced mortal, eſpecially that called the *Locked-Jaw*. However, the *London* Medical Obſervations furniſh no leſs than four well-atteſted Inſtances of a Cure in this terrible Diſorder.

A Woman, who, by a Fall, broke and lacerated the firſt Joint of her fourth Finger, which was ſoon taken off by a Surgeon, whereby ſhe had preſent Eaſe: But Part of the ſecond Joint being alſo denudated, the Pain returned, and increaſed daily, and the Skin and Fleſh could not be brought to cover the Joint, till at Length the whole Hand was greatly ſwelled, and Abſceſſes were formed in the Palm. She was blooded, and the ſame Evening was ſeized with a ſpaſmodic Contraction of the elevating Muſcles of the lower Jaw. Next Morning the Teeth were ſet, and ſhe could ſcarce receive even Liquids. Bliſters were put on her Back, Neck, and behind the Ears. Alexipharmics and Volatiles were given in large Doſes for three Days, but ſhe grew worſe and worſe, the Jaw being quite immoveable: Spaſms ſeized the whole Spine, which, when ſhe attempted to ſit up, pulled her back with the greateſt Violence, and her Legs and Arms were thruſt out to their utmoſt Extent. Every Part was continually convulſed, with ſo ſevere Pains, that ſhe could get no Sleep; nay, the Sight, Hearing, and Memory, were alſo greatly impaired. Twenty Drops of *Tinctur. Thebaic.* were ordered every ſix Hours. Next Day the Symptoms were at a Stand, and thirty Drops were given every ſix Hours. The following Day ſhe was a little relieved, and the Doſe was increaſed to forty Drops every ſix Hours, which produced near Half an Hour's Sleep at three different Times; upon which three Grains of the Extract were ordered three Times a Day.

On the Morrow ſhe was ſurpriſingly mended; ſo that it was thought the Quantity of *Opium* might be leſſened from three Grains to two; but after two Days more, upon finding ſhe had gained no further Ground, ſhe was ordered eight Grains a Day, and ſoon after ſtill more: Notwithſtanding which, the Jaw remained almoſt equally locked, when it was ſuſpected that much was owing to the ill Condition of the ſecond Joint; wherefore the whole Finger was taken off. The next Day ſhe began to mend, and continued to do ſo every Day more and more; the Convulſions decreaſed, and ſoon left her, and the Wound proved kind, and cicatrized as ſoon as could be expected; but the Jaw was ſtill difficult to move. As the Symptoms abated, the Doſe of *Opium* was leſſened at the Rate of a Grain a Day, till ſhe took but a ſingle Grain in twenty-four Hours, which having continued ſome Time longer at Night, ſhe was perfectly cured, excepting a ſmall Degree of Stiffneſs in the Jaw, when ſhe offered to open her Mouth wide.

A middle-aged, ſtrong healthy Man, happened to tread on the blunt Point of a large Nail, which entering between the two outer metatarſal Bones, went almoſt through the Foot. The next Day, the Foot being much pained and ſwoln, he was blooded, the Wound dilated, and a Bit of the Stocking, which had been forced in, extracted; he continued eaſy for near a Fortnight, except a Cough, ſuppoſed to ariſe from taking Cold; But then he began to complain of a Stiffneſs of the under Jaw, his Cough was dry and huſky, with a ſtinging Pain in his Breaſt, ſtriking through to his Back. His Pulſe being quick and full, he was blooded to twelve Ounces, and an opening Mixture preſcribed. In the Evening he was bliſtered *inter Scapulas*, an oily Mixture given him for his Cough, and two Grains of *Opium* going to Bed. He had a reſtleſs Night, and next Morning the Jaw was cloſer; a Clyſter was given, and after its Operation he was ordered *Moſch. pur.* ℈ſs. *3a. vel 4a. quaque Hor. in Julep. commun.* being as yet able to ſwallow Liquids. On the Morrow little or no Variation of the Symptoms. The Muſk had greatly heated him, and he was therefore preſcribed Broths and Gruels as much as he could get down, and the Muſk was continued. He ſcarce ſlept at Night, and in the Morning coughed much, and complained of Pains in his Breaſt, Back, and Bowels; the Jaw was ſo faſt locked, that he could ſcarce admit the leaſt Nouriſhment; beſides, he complained of a Pain and Difficulty in Urining. The Diſtemper having evidently increaſed after two Days Uſe of the *Muſk*, it was diſcontinued, he loſt nine Ounces of Blood, and had a purging Clyſter given him; in the Evening he took *Opii pur. gr.* ij,

which

which was repeated every three Hours. The fore Part of the Night he was reſtleſs, ſlumbered a little in the Morning, and by Eleven o'Clock he had taken ten Grains of *Opium*. He could now open the Jaw ſo as to let in Gruels, though with Difficulty, and the Cough and Pains were ſeemingly abated. He was ordered to take what Broth he could in the Day, and the *Opium* in the Evening, as before. He got two or three Hours Sleep, having taken only ſix Grains till Morning, when the Jaw appeared much as the Day before; a thick Raſh broke out, and he was reſtleſs all Day, and complained of a Dyſury. The *Opium* was diſcontinued at Night, and Broths, and Barley Water, with *Gum. Arab.* were his Drink; he had alſo a laxative Clyſter. Next Day he was evidently much worſe, the Jaw cloſer, the Pains violent, ſhooting upwards from the Belly to the Stomach, Breaſt, and Back; his Pulſe much hurried, and the Raſh ſtill out. The former Benefit he had received from the *Opium*; and the Return of the bad Symptoms upon its Diſuſe, induced his Phyſician to order him a Grain every Hour, with which he began about Noon; and for his Belly Pains he had a Clyſter, with ℥ ſs. of *Rad. Valer. Sylv. Pulv.* in the Evening. In the Night he ſlept about two Hours, and ſeemed the next Morning almoſt in all Reſpects better, except in the lower Belly; yet the Raſh was ſtill out, but leſs florid, the Pulſe quick, and the Dyſury troubleſome. He was ordered *Opii Pur. Gr.* i. *ſtatim, et repet. omni bihorio.* He got two or three Hours Sleep in the Night, and the next Day ſeemed a good deal better, and could take Liquids pretty well. The Pulſe much the ſame. The Raſh ſeemed abating, the Dyſury leſs, but the Belly Pains ſtill grievous. His Drinks and Nouriſhment were continued the ſame, and he was to take *Opii Pur. G.* i. every ſix Hours only, with the *Valerian* Clyſter again in the Evening. The next Morning there was a general Amendment of the Symptoms; the Pains of the Belly were ſtill complained of with Coſtiveneſs, for which he was ordered an *Enem. Purg. cum Tinct. Theb.* ℥ ſs. *Veſperi*, and *Op. Gr.* ii. *cum Aſ. Fœtid. Gr.* v. were directed to be given at Bed-time. The following Day the Cough and Pains of the Breaſt were returned; he ſlumbered but little in the Night; the Jaw much as the two preceding Days. As he could uſe a Spoon pretty eaſily, he was ordered a Mixture of *Sperm. Cet. Sal. Vol. C. C.* and *Elix. Paregoric. Cochlear.* ii. *ſubinde urg. Tuſſi vel Dolore*, &c. at the ſame Time he was directed *Opii Pur. Gr.* ii. *ſtatim, et repet. Hor. Somni, et Hor. quinta vel ſexta matutina.* In the Morning the Jaw was ſenſibly freer, and he ſeemed in all Things better, except the Belly Pains, and the Coſtiveneſs; wherefore this Evening he had the *Valerian Clyſter*, and

and two Grains of *Opium* at Night, to be repeated in the Morning; when every Thing looked more favourable, though the Jaw mended but ſlowly. It was, therefore, thought adviſeable to try *Antiſpaſmodics*, and ʒſs. of *Pulv. Rad. Valer. Syl.* was ordered, with the *Julep. e Camphor. ter in Die*, and *Opii Gr.* ii. *Hor. Som.* Though he had but ſhort Slumbers, yet the next Morning the Pains were much eaſier, he urined freely, his Pulſe quieter, but the Jaw ſtill ſtiffiſh, with a Pain in its Joints when moved, for which Bliſters were applied behind the Ears, and a Pill *Opii Gr.* ii. given at Bed-time. This proved the moſt tolerable Night's Reſt he yet enjoyed, he ſlept five Hours, and next Morning had a natural Stool, with a better Pulſe, and more Flexibility of the Jaw. A laxative Mixture was directed *pro re natâ*, and a Pill *Opii, Gr.* ii. *h. ſ.* Four Days after he ate a Bit of Pudding, and chewed a Piece of Bread for the firſt Time, and continued mending daily, the Jaw, however, was not quite reſtored for ſome Time. The Wound all along looked well, and healed up ſeveral Days before the other Symptoms diſappeared. The Texture of the Blood drawn was never ſizy, but looſe, as in moſt Species of ſpaſmodic Affections. The Opium never in the leaſt diſordered his Head, although he took no leſs than Ninety-two Grains in Twenty-two Days.

An unmarried Lady, Twenty-eight Years of Age, ſlender and pale, complained of a grievous Pain and Tightneſs of her Breaſt, under the Middle of the *Sternum*, at the Pit of her Stomach, and about the Root of her Tongue. Her Jaw was ſo contracted, that the flat Handle of a Spoon could hardly be paſſed between her Teeth; the *Maſſeters* were firm and rigid, the Pulſe a little languid and ſlow, and the Tongue, as far as could be ſeen, in a natural State. She could get nothing ſolid into her Mouth, but ſucked in Liquors, and ſwallowed them with tolerable Eaſe, a little at a Time. She made Water in ſmall Quantities, and with Difficulty. Thus her Phyſician found her; for above a Week before which ſhe felt a ſmall Difficulty in ſwallowing, with a Tightneſs about the Root of her Tongue, without any other Complaint: Theſe gradually increaſed, and were accompanied with a Pain about the Pit of the Stomach, and under the *Sternum*, as mentioned above, without any Signs of Inflammation of the Throat. She was blooded, and the next Day gently purged; the Blood was not ſizy. Complaining of a little huſky Cough, ſhe had an oily Emulſion, and her Throat was fomented with an emollient *Fotus*. The next Night the Purge was repeated, and operated briſkly, and Bliſters were put behind her Ears; from all which ſhe found no Relief, and the Pain under the *Sternum* encreaſed till the Time the Doctor firſt ſaw her,

who

who ſoon concluded the Diſeaſe to be plainly that of a *Locked-Jaw*; although there did not appear to have been any of the preceding Cauſes that uſually produce this Complaint; and therefore reſolved to try the Effect of Opiates. As ſhe could admit nothing ſolid, he ordered a ſmall Draught with *Tinct. Thebaic gutt.* x. to be given, and repeated in an Hour, and afterwards every two Hours, and to the Pit of the Stomach a Plaiſter *ex Opio et Gum. Galban. an. p. æ.* She had a tolerable Night, and ſlept in the whole about four Hours; by Nine next Morning, the Pain of the Breaſt was much abated; in this Space ſhe had taken Seventy Drops of the *Tinct. Theb.* could open her Teeth a little, had voided but little Water, and that with a conſiderable light-coloured Sediment, inclining to Violet. The Opiates were directed to be continued every four Hours. In the Evening ſhe was very faint, with a Catching of the Breath, and a languid Pulſe, and could ſcarce open her Teeth. Having had no Stool for two Days, an emollient Clyſter was ordered, and the ſame Draughts to be repeated every three Hours; ſhe had but an indifferent Night, but was better the next Morning, the Breath eaſier, Pulſe better, and ſhe could open her Teeth with leſs Difficulty; but as the Jaw was ſtill much locked, and the Opiate did not diſturb her Head, the Draughts were continued. About Seven in the Evening ſhe was worſe again, and the Jaw more contracted; ſhe had now taken 170 Drops of the *Tinct. Theb.* The Clyſter operated gently twice, but ſhe ſtill made but very little Water. The Draughts were continued; about eleven this Night her Pulſe was pretty ſtrong, and a little irregular. The enſuing Morning ſhe was very faint, and ſoon after complained of a great Stricture about her Jaw and Neck, which was immediately followed by a catching of the Breath. Having made no Water all Night, a Turpentine Clyſter, and ten Grains of Camphire, with a little Tincture of Valerian in a Draught, were preſcribed, In the Afternoon ſhe was better; but the Stricture of the Jaw remained, and the Muſcles about the Mouth, Throat, and Neck, were plainly affected with a Spaſm. As her Head had never been affected with the Opiate, *Tinct. Theb. Gutt.* xx. in the *Julep. Camph.* were ordered every two Hours for three Times, and then every four Hours. By the next Morning ſhe had taken five of theſe Draughts, was reſtleſs moſt Part of the Night, but now eaſier. The Tightneſs about the Jaw, Mouth, Throat, and Neck, continued, and ſhe felt a Rigidity in other Parts of her Body. The Urine was little, with much Sediment. She drank Plenty of Barley-Water and Nitre. The Draughts were repeated every three Hours, and ſhe had a Turpentine Clyſter. The following Day ſhe was the ſame.

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The Head not yet affected with the Opiates, though she had never before been used to any; and had now taken 420 Drops of *Tinct. Theb.* in five Days. The Urine still small, with a thick Sediment; the Belly soft, and no Fullness about the Region of the Bladder; not only the Muscles about the Mouth, Throat, *&c.* were hard and contracted, but the Skin too was stretched tightly over them; nay, all the Muscles that bend the Head, Neck, and Body, were contracted; wherefore a hot Bath was recommended, though the Lady dreaded Suffocation, in being carried in a Chair to a Bagnio. However, she bore it well backwards and forwards, as also the Bath, in which she continued near twenty Minutes. She took four more Draughts, during which she made more Urine than since her Illness, and seemed better, though she got but little Rest at Night, and fancied her Breast had suffered for Want of the Plaister, which was taken off when she went into the Bath; a fresh one was therefore applied. She took one Draught the next Morning, and two more before Night. Her *Menses* had appeared whilst she was in the Bath, though a Week before the stated Time. The following Day Things continued much the same; yet the Pulse was good, she had slept better, and made more Water in the Night, with a large Sediment. She now had no Stool for four Days, so an opening Clyster was administered. As within the Week she had taken above 500 Drops of *Tinct. Theb.* without conquering the Disease, it was thought proper to intermit their Use for twenty-four Hours at least, and try the nervous Fœtids: Therefore a Draught, with a little Tincture of Valerian and Castor, was ordered to be taken immediately, and repeated each six Hours. She passed the Night badly, and on the Morrow her Jaw was locked faster than ever, the Muscles more rigid, the Breathing harder, the Agitation of the Spirits increased, and not a Drop of Urine had been voided for twenty-six Hours. From all this it was plain, that Opiates were not to be neglected, and therefore thirty Drops of *Tinct. Theb.* were given directly, to be repeated every two Hours for three Times, and afterwards every four Hours. By next Morning (reckoning from the foregoing Morning) she had taken six of the Draughts. Her Jaw was so free, that she could open her Teeth near half an Inch; all the Muscles about the Neck and Throat were relaxed, and felt easier; she breathed better, and had slept with Refreshment. The Urine also was considerably increased. From this great Amendment, it was reasonable to conclude, that Opiates were, perhaps, the only Medicines to be relied upon; and the Draught was ordered to be repeated every six Hours. The next Day she was much the same: The Draughts repeated as Yesterday; the following Day the same;

as alſo the ſucceeding Day, ſaving that a Raſh came out all over her; and ſhe took but three Draughts in the whole. On the Morrow ſhe was conſiderably worſe, extremely low and faint, and her Jaws as cloſe as ever. Ten Drops of the *Tinct. Theb.* and one Scruple of Mithridate, were added to each Draught, and ordered to be repeated every four Hours. The next Day ſhe was much better, and could open her Jaw wider than ſhe had yet done: Had taken ſince Yeſterday 240 Drops, and two Drams of Mithridate. The Day after, much the ſame: The Draughts continued: The Bath ordered again. Next Day likewiſe much the ſame; made a Quantity of Water; but complained of a Spaſm or Tightneſs under the *Sternum*, and could not break Wind when ſhe attempted it, by which ſhe had always found much Relief. The Draughts continued, and ſhe was ordered into the hot Bath every Day. The following Day ſhe complained much of her Throat, and had taken but two Draughts; had three Stools in the Night; the firſt very coſtive, the only Diſcharge of the Kind, without the Aid of Medicine, ſince her Illneſs; for Clyſters had been uſed all along; ſhe made more Water likewiſe: A purging Potion was ordered, and the Draughts occaſionally. On the Morrow ſhe was in all Reſpects better, but the Jaw being ſtill ſomewhat rigid, ſhe bathed for ſeveral Days in warm Water, took one or two Draughts a Day, began to eat ſolid Fleſh, ſlept pretty well of Nights; urined freely, and had commonly two natural Stools a Day. Finally, ſhe went into the Country, continued to mend, and in a little Time recovered her former State of Health, without further Uſe of any Medicine whatever.

A young Man of Twenty was ſeized with a Pain in his Throat, and a ſpaſmodic Contraction of his lower Jaw, which, after four Days, was ſo cloſely locked, that it was impoſſible to open it, without running the utmoſt Riſque of breaking it. He could take none but liquid Nouriſhment, and that with great Difficulty. Violent convulſive Spaſms ſeized him almoſt every Minute, and his Head was forcibly thrown back upon every Attempt to riſe from his Chair. His Legs were affected with the like Spaſms, his Eye-lids contracted, and his Hearing much impaired. He could ſcarce void his Urine, and had no Stools but by Clyſters. He had alſo the *Riſus Cynicus*, the *Gaſtrocnemii* and *Abdominal* Muſcles were as tenſe as poſſible, and all his Joints ſo ſtiff, as not to be moved without great Violence. He had received a Bruiſe, about a Month before his Symptoms appeared, on the anterior Part of the fourth Finger of the left Hand, which is now thought to be well, though he wore a little Plaiſter on it, upon removing which, no Inflammation or Swelling appeared,

but

but only a little thin limpid Diſcharge from an Orifice, which would but juſt admit the Point of a very ſlender Probe, by which it was plainly perceived, that the Bones of the ſecond and third *Phalanx* were bare in the Joint, and the Ligaments deſtroyed, ſo that the Joint was entirely uſeleſs. The Surgeon, however, could not perſuade him, or his Friends, that his Diſorder was owing to this Accident, as he had continued well ſo long ſince he received the Hurt, without any Return of Pain. He was blooded, bliſtered, vomited, purged, and clyſtered, without any Benefit; and took Muſk, Bark, Camphire, and Valerian, in large Doſes, with as little Effect. Opiates alone ſeemed to mitigate the Symptoms, which were gradually increaſed from ſmall Quantities, till he took a Grain of *Opium* every Hour, and continued ſo doing for ſeveral Days together, without obtaining more Sleep than uſual. Theſe Opiates proved but a temporary Relief; for when they were omitted, he relapſed into as bad a State as ever. At length, ſix Weeks after the Accident, the laſt *Phalanx* was taken off at the Articulation; the Diſorder, nevertheleſs, did not abate till four or five Days after, upon nipping off the Extremity of the Bone, and with it a little Splinter, which ſtill irritated the nervous Syſtem; when his convulſive Spaſms were become immediately both leſs ſevere and leſs frequent. The Quantity of his Opiates was reduced by Degrees, till in about a Month his Fits entirely left him. The Jaw, however, ſtill remained ſo ſtiff, that he could open it but a little Way, and the Muſcles of the Belly and Legs were ſo tenſe, that he could not walk without Aſſiſtance. But thoſe Symptoms were ſoon removed by the Uſe of the warm Bath frequently repeated, and he became perfectly well, and able to undergo any Fatigue. He took 317 Grains of *Opium* in about five Weeks, beſides ſeveral Draughts with *liquid Laudanum*, and Syrup of Poppies.

From the Recital of theſe Caſes, the following Inferences may fairly be drawn:

That in the *Locked-Jaw*, Blood drawn from a Vein, appears no-ways ſizey or inflammatory; nor do the neighbouring Muſcles of the *Fauces*, Tongue, Neck, or Head, diſcover the leaſt Mark of Inflammation.

That neither Bleeding, Purging, Bliſtering, Alexipharmics, Volatiles, Fœtids, *&c.* are by themſelves of any Importance in this Diſorder.

That Opiates alone are capable of keeping the Symptoms at a Stand; and by being gradually increaſed to very conſiderable Doſes, without Intermiſſion or Abatement, are able to ſubdue this moſt obſtinate, violent, and reputedly deſperate Diſeaſe, and

reſtore

restore the Patient to Health; and this the more easily, if assisted with warm Bathing.

That Patients under this Disorder very rarely or never experience any bad Effects from the most liberal Exhibition of Opiates; but, on the contrary, find certain Relief from the most distressing and excruciating Symptoms, and acquire Rest and new Spirits: That even eight or ten Grains of Opium a Day may be safely given and continued, without Intermission, for Weeks together *.

That when the Disorder arises from some external Injury, as Bruises or Lacerations of a Tendon, &c. as it generally does, if the Pain cannot readily be appeased, and the Wound healed, the injured Part must be amputated, in order to extinguish the Irritation on the *Genus nervosum*, before even Opiates can possibly take Effect.

Of the Opisthotonos *and* Tetanus *of* North-America.

THE *Opisthotonos* often comes on gradually, and by slight Approaches, the Patient complaining at first rather of an uneasy Stiffness in the back Part of the Neck, and about the Shoulders, than of any acute Pain, with some Degree of a general Lassitude. These increase, and become so troublesome when he attempts to turn his Head, or to bend it forwards, as to oblige him to walk very erect; for he can by no Means look downward, nor to either Side, without turning his whole Body. He cannot open his Jaws without Pain, and has some Difficulty in swallowing, which discourages him from attempting to eat. At Times he feels a sudden and painful Traction under the *Cartilago ensiformis*, which strikes through the Back, and instantly increases the Rigidity about the Neck and Shoulders, draws the Head backward a little, and shuts the Jaws closer. The Pain under the *Sternum* returns more frequently and violently, and the other Contractions become so strong, that from this Time the Head continues much contracted, and he now refuses Nourishment, through the Pain of Swallowing, which produces a Re-

* In each of the above Cases, near ten Grains of *Opium* a Day were given, before any notable Ground could be gained; and the last Patient, in about five Days, (as is said,) took no less than 317 Grains of Opium, besides several Draughts with liquid *Laudanum*, and Syrup of Poppies, without the least ill Accident.

turn

turn of the Spasm, and extends along the Spine, quite to the lower Extremities, so that they will no longer support him, and he is under the Necessity of taking to his Bed.

Thus passes over the first Stage of the *Opisthotonos*, which sometimes takes up three or four Days; the Patient, and those about him, mistaking the first Appearances for a Crick in the Neck: But sometimes it forms itself much quicker, even in a few Hours; in which Case the Danger is generally proportioned to the Violence of the first Attack, such mostly dying in twenty-four, thirty-six, or forty-eight Hours, and rarely surviving the third Day: When less acute, few are lost after the ninth or eleventh. In this Stage the Pulse is slow and very hard, and the Belly bound; Blood drawn, seems unaltered from its natural State, only varying by a Laxity of Compactness.

In the second Stage, the Spasm under the *Sternum*, (which is the pathognomic Symptom of this Disease,) becomes more violent, returning every ten or fifteen Minutes, and is ever instantly succeeded by a stronger Retraction of the Head, with great Rigidity and Pain all round the Neck, and along the Spine, to the lower Extremities, which are suddenly stretched. The Countenance is very pale and contracted, the Jaws are that Moment snapped together, nor can afterwards be opened so wide as to receive the End of one's little Finger, an Attempt to do which, by Way of Experiment, surely hurries on the Spasm. All the Muscles serving to Mastication and Deglutition, and the Deltoid and Pectorals are violently contracted, so that the Shoulders are strongly raised forward, and the Arms are stretched out, or drawn across the Body; but the Wrists and Fingers seem not to be affected.

Such is the Condition during the Spasm, which ceases in a few Seconds; then the Shoulders and Arms recline, and the lower Extremities relax, yet not so entirely, but that so much Rigidity usually remains, as will not permit them to bend, though attempted by another Person; for as to the Patient, he cannot at all move them. The Muscles on the Sides and fore Part of the Neck, continue still contracted, though not so much, but their Action is overcome by the Number and Strength of the posterior ones, so that the Retraction of the Head constantly remains; he breathes for some Minutes much, as if he had been excessively fatigued, and the Pulse is small, fluttering, and irregular, but both become more calm and slow. The Pulse, especially, in some, beats not above forty times in a Minute; in others it is quicker than natural, and always hard. The Face is sometimes pale in the Intervals, but oftener flushed, and the whole Countenance indicates the most melancholy Distress, as well

from

from the Dread of the Return of the Spasm, as from the Pain by the present Contractions, and the Remembrance of the more severe past ones. The Tongue is stiff and torpid, but, as far as can be seen, is not foul. The Urine can seldom be saved, being forced away by the Spasm, or voided in the Bath. What has been seen is mostly high-coloured, (perhaps because they drink but little,) with a thin, dusky Cloud suspended in it. The Head is rarely complained of, although they mutter a little in their short Slumbers, from which they are soon roused by the Spasm. The Belly is always bound, and cannot be loosened. In Drinking, the Liquid passes with great Difficulty to the Stomach, even in the smallest Quantity; and if the Spasm should seize him at that Time, which an Attempt to swallow for the most Part occasions, the Liquor returns through the Nose with Force. Blood drawn in this Stage looks no way inflammatory, but rather of a dissolute *Crasis*, with florid and dusky Streaks. In general, they desire to lie still as much as possible, and avoid Drinking, Speaking, or Stirring, either of which is apt to make the Spasm return. But others again require to be turned in hope of procuring an easier Posture, which never fails to produce an Attack of the Convulsion, whereby the Head is drawn back to the Spine, which is best prevented by lying on the Back.

In the third or last Stage, the Patient is reduced to the most calamitous Circumstances, being on a continual Rack, in the most literal Meaning: For the Spasm returns oftner than once in a Minute, is far more violent, and lasts longer, so that there is scarcely any Remission: The anterior Muscles of the whole Body now suffer equal Contractions with the posterior, but the last overcome the Force of the others, so that the Spine is strongly bent backwards, and forms a hollow Arch, that the Patient rests entirely on the hind Part of his Head, and his Heels. The Belly is flat, and drawn inward, and the Muscles so rigidly contracted, as not to yield to Pressure, nor give way to the Descent of the Diaphragm in Inspiration; the several Muscles about the Neck, Sides, and Abdomen, being plainly distinguishable from each other. Although the lower Extremities are always rigid in this State, yet are they so suddenly and violently distended during the Spasms, that, were it not for the Standers-by, he would be projected, Feet foremost, off the Bed; while others again are, as it were, pushed upwards with such a Spring, that the Head is struck with great Force against whatever happens to be in the way, the Thighs and Legs being, in this Case, no less rigid than the other Parts. The Tongue is convulsively darted out, and often miserably torn, as the Teeth are that Moment snapped together, so that it is necessary to prevent this, by keeping the Handle of a Spoon, wrapped round

with

with ſoft Rags, between the Teeth, when it can be done. At the ſame Time the Tongue is thus thruſt out, the muſcular Fleſh, which lies between the Arch of the lower Jaw, and the Head of the *Trachea*, ſeems to be drawn upwards within the Throat. The Countenance is very much contracted, and he is in a Foam of Sweat, the Heat being very great, and the Pulſe between the Spaſms exceeding quick, ſmall, and irregular, although the Heart throbs ſo ſtrongly, that its Motion may be plainly ſeen, and a palpitating ſubſultory Kind of Undulation may not only be felt, but perceived all over the epigaſtric Region. The Eyes are watery and languid, and a pale or bloody Froth bubbles out from between the Lips. The Jaws are, for the moſt part, locked faſt, ſo that it is impoſſible to give Drink or Nouriſhment, nor could he ſwallow it, if any Thing were put into his Mouth. In this State they are commonly delirious, and as they cannot ſubſiſt many Hours, under ſo great a Suſpenſion of the vital and natural Functions, a mortal Anxiety enſues, and releaſes them; oftener a continued and ſevere Spaſm finiſhes the Tragedy, when it was before almoſt at an End; moſt frequently a general Convulſion puts a Period to their Sufferings, and which ever way this happens, they, for the moſt Part, relax juſt before Death.

In the *Tetanus*, the general Symptoms are nearly the ſame as in the *Opiſthotonos*, except that from the firſt Attack, the lateral, abdominal, and other anterior Muſcles, are equally contracted with the poſterior ones; and the Arms become rigid, as well as the lower Extremities. The *Abdomen* is always flat and rigid, as in the laſt Stage of the *Opiſthotonos*, and its Contents ſeem to be thruſt up into the *Thorax*, which at the ſame Time appears to be much dilated. There are here alſo ſome Intervals between the Spaſms, during which the Cheeks are drawn towards the Ears, ſo that all the Teeth may be ſeen. Deglutition is more free in this than in any other Diſeaſe; yet ſo far is the Sick from being equally balanced between the Contractions of the oppoſite Muſcles, that the Head is retracted, and the Spine is recurvated, though not quite ſo much as in the *Opiſthotonos*: And the Spaſm which commences under the *Sternum*, is likewiſe common to the *Tetanus*, which terminates as the other, and on the ſame fatal Days. But whoever recovers from either, labour long under a general *Atonia*, and they cannot for ſome Months raiſe themſelves from a ſupine or recumbent Poſture, without Pain, nor without Help, for ſome Time.

Nothing like a *Criſis* ever happens in theſe Diſeaſes; ſo that the Recovery muſt entirely depend on Medicine, in the Choice

of

of which all very heating and stimulating Things, given inwardly, or applied outwardly, are to be avoided, especially *Blisters*, which have a most pernicious Effect. Mild *Purgatives*, joined with temperate *Diaphoretics*, have been given gradually, and continued till they had operated, without any Advantage; nor did *Vomiting*, which was excited accidentally, by the *Kermes Mineral*, answer any good Purpose, although much Bile was thrown up; and Worms have been voided both Ways in others without yielding any Relief. Musk has not yet been tried, but it is probable, after the Violence of the Spasm has been abated by *Opium*, it might be given in large Doses, with good Effect.

If the Patient is plethoric, Bleeding at the Beginning of the second Stage (and the Physician is seldom called sooner) is necessary;) not because it has ever procured any Abatement of the Symptoms, but that, by emptying the Vessels, he will bear the warm *Bath* and *Opium* better, from the Use of which this Recovery is to be wholly expected (so far as has been hitherto discovered) for they seldom can swallow any thing till after the Bathing; and as Deglutition becomes more free, Drink or Nourishment are then to be given through the Spout of a Tea-pot.

If the Weather is warm, and the Pulse quick, with a preternatural Heat in the Skin, the Warmth of the Water in the *Bath* should not exceed the 96th or the 98th Division on *Fahrenhit*'s Thermometer. But when the Pulse is slow, with little Heat, it ought to be so warm as to raise the Mercury to the 100th or 102d Degree, especially in cold Weather. While he is in the Water, gentle Friction should be used, especially about the Neck, Breast, and along the Spine, so far as it can be come at; and he is to be kept in the *Bath*, until the Pulse becomes soft and full. When it is thought necessary to take him up, he is not to be wiped dry, but must be wrapped immediately in a dry Blanket, and put to Bed, in which they usually sweat freely: But should those Sweats prove too profuse, especially if the Pulse becomes very frequent and contracted withal, with an intense Heat of the Skin, they are to be discouraged by rubbing the Skin dry with a warm Cloth.

It is to be observed, that the Person should lie at full Length in the Tub, having a Blanket rolled up for a Pillow under his Head, and, except his Face, he ought to be covered with Water, a due Heat of which must be kept up, by supplying warmer Water as it cools in the Bath; wherefore it is necessary to have a Kettle always over the Fire, with the Bathing Tub at the Bed-side, that both may be ready when wanted, which may be five or six times in a Day.

If no gentle *Opiate* was given whilst he was in the *Bath*, let him soon after take a large Dose, which ought to be repeated boldly every half Hour, or at such Intervals, as to allow Time to judge of the Effect of the preceding one; and in this Manner the Use of it is to be continued, until the Spasm under the *Sternum* ceases, which will be surely succeeded by a Remission of the Contractions. But as both will as certainly return, when the Effect of the *Opiate* wears off, it must be repeated in due Time, by Way of Prevention; of the Necessity of which the Patient will have Warning, by perceiving the gradual Approach and Increase of the Pain, as the Operation of the *Opium* diminishes. Wherefore he should be from Time to Time questioned about it, and, when found necessary, the *Opiate* thrown in and repeated till the Intention is answered, and the Pulse becomes soft, full, and equal, with an even Moisture over the whole Body. In Proportion to which Appearances, the Quantity of the *Opiate* may be diminished, and the Intervals of giving it enlarged; yet its Use may be necessary many Days.

To suppress this Spasm, observe, much larger Doses of *Opium* are required than perhaps in any other Disease; so that the Quantity cannot be defined, but must depend on the Effect. Some have taken 200 Drops of the *Tinct. Opii* for a Dose, and were not kept easy three Hours, and some will take more than an Ounce of the same in a Day, without being affected with a *Stupor*. Yet, after all, the Reader should be admonished, that such excessive Quantities are not to be hazarded, till smaller Doses are found ineffectual. In general it will be necessary to give very freely; and he who contents himself with complying with the Directions usually given for administring *Opium*, will, in those Diseases, deceive himself and his Patient, by such supposed prudential Timidity.

Besides *Opiates* and *Bathing*, *Glysters* repeated with a *Decoction of Camomile Flowers*, *Mallows*, &c. to which a large Portion of *Oil* is added, should frequently be injected. *A Bladder half filled with warm Water*, and tied close, should always be kept on the Pit of the Stomach when the Patient is in Bed, and the rigid Parts should often be bathed with *warm Oil*, to which some *Opium* is added, with a continued and *gentle Friction*.

In the *Tetanus*, the same Method will take Place, and the *Abdomen* may be often fomented with four-fold large Flannels, squeezed out of an *emollient Decoction*, taking Care to guard the Bed-cloaths from being damped by the Steam.

During the Severity of the Disease, the Sick may drink a *Decoction of Figs*, *Liquorice*, *and Fennel Seeds*, *Sage Tea*, *very weak*,

weak, *White-wine Whey*, or *any mild diaphoretic Liquid*: For Nourishment, *thin strained Gruel*, *Panada*, or *weak Broth*: But after the Contractions have ceased some Days, a little *Canary*, or *Mountain*, may be added to his Gruel, and his Broths may be stronger, to recruit his greatly impaired Strength.

When the Spasm has ceased some Days, a *Solution of Manna*, *regenerated Tartar*, with a little *Saffron*, and *Treacle Water*, should be given in small Doses every Hour, to prevent any new Disturbance from the *Stimulus* of any Bile, or other Acrimony, by which a Stool may be procured, without Fear of exciting any new Spasm. CHALMERS.

END *of* VOL. I.

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